

Edgar Filing: ESSEX CORPORATION - Form 10KSB

ESSEX CORPORATION  
Form 10KSB  
March 27, 2003

FORM 10-KSB  
U.S. SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 29, 2002 Commission File No. 0-10772

ESSEX CORPORATION  
(Name of small business issuer in its charter)

Virginia 54-0846569  
(State or other jurisdiction (I.R.S. Employer  
of incorporation or organization) Identification No.)

9150 Guilford Road, Columbia, Maryland 21046  
(Address of principal executive offices) (Zip Code)

Issuer's telephone number: (301) 939-7000

SECURITIES REGISTERED UNDER SECTION 12(b) OF THE EXCHANGE ACT:	
TITLE OF EACH CLASS	NAME OF EACH EXCHANGE ON WHICH REGISTERED
-----	-----
None	None

SECURITIES REGISTERED UNDER SECTION 12(g) OF THE EXCHANGE ACT:  
COMMON STOCK, NO PAR VALUE PER SHARE  
(Title of Each Class)

Check whether the issuer (1) filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the past 12 months (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 ---  
-----

Check if there is no disclosure of delinquent filers in response to Item 405 of Regulation S-B is contained in this form, and no disclosure will 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-KSB or any amendment to this Form 10-KSB.

State issuer's revenues for its most recent fiscal year. \$4,506,419  
-----

State the aggregate market value of the voting stock held by non-affiliates computed by reference to the price at which the stock was sold, or the average bid and asked prices of such stock, as of a specified date within the past 60 days. \$12,224,550 as of March 6, 2003  
-----

State the number of shares outstanding of each of the issuer's classes of common equity, as of the latest practicable date.

CLASS	OUTSTANDING AT MARCH 14, 2003
-----	-----
Common Stock, no par value per share	8,911,971

DOCUMENTS INCORPORATED BY REFERENCE  
None



## Edgar Filing: ESSEX CORPORATION - Form 10KSB

expectations, and other "forward-looking" information. Those statements are subject to known and unknown risks, uncertainties and other factors that could cause the actual results to differ materially from those contemplated by the statements. The "forward-looking" information is based on various factors and was derived using numerous assumptions. In some cases, you can identify these so-called "forward-looking statements" by words like "may," "will," "should," "expects," "plans," "anticipates," "believes," "estimates," "predicts," "potential," or "continue" or the negative of those words and other comparable words. You should be aware that those statements only reflect our predictions. Actual events or results may differ substantially. Important factors that could cause our actual results to be materially different from the forward-looking statements are disclosed under the heading "DESCRIPTION OF BUSINESS - Risk Factors."

### 1. DESCRIPTION OF BUSINESS

#### GENERAL OVERVIEW

Based in Columbia, Maryland, Essex develops and commercializes optoelectronic devices for industry and government. Essex began 2002 with a core team of over 25 engineers, most of whom have worked together for more than a decade. Now, the technical team has grown to over 80, with the formation of the Communications Services Division (CSD) and the acquisition of Sensys Development Laboratories, Inc. (SDL) effective March 1, 2003. In the area of services, Essex provides optoelectronic and signal processing expertise to government customers under highly classified advanced and next generation research and development (R&D) contracts, supports the intelligence community mission critical voice and video systems infrastructure, and provides highly classified systems engineering to government customers. In the area of products, Essex builds optical communications and networking system elements and components.

Essex's team has invented, built and fielded many complex optical systems for U.S. Government agencies' R&D in the areas of fiber optic communications, signal processing and code division multiple access (CDMA) telecommunications systems. The Company is a pioneer in the development of optoelectronic (OE) processors. OE processors are specialized, high-performance computing systems that significantly outperform conventional general-purpose computing systems in certain important applications. Optoelectronic processors usually offer performance improvements of a factor of ten or more. They accelerate conventional workstations in demanding computations in image, signal and other types of technical data processing. An optoelectronic processor is integrated with or embedded in other processors to render daunting processing problems feasible. ImSyn(TM), the Company's first commercially available processor, computes at an equivalent all-digital rate of 1.6 teraflops at 120 dB dynamic range.

3

Capitalizing on its expertise and success in developing and building optoelectronic systems for national security applications, Essex has developed five core technology areas of expertise and intellectual property:

- 1) Optoelectronic processors and processing (including the Advanced Optical Processor (AOP) program and Optical Processor Enhanced Receiver Architecture (OPERA(TM)) technology);
- 2) HYPERFINE WAVELENGTH DIVISION MULTIPLEXING (WDM) technology for telecommunications;
- 3) Communications services (including the capabilities of the newly formed

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

Communications Services Division);

- 4) Signal processing (including the capabilities of recently acquired SDL); and
- 5) Virtual Lens Imaging (VLI) technology (including the ImSyn(TM) processor and technology, for surface and below surface imaging).

The HYPERFINE WDM technology is a passive optical technology for powering WDM networks of the future. OPERA(TM) will be a system that combines an optoelectronic processor with advanced multi-user detection algorithms to eliminate the "near-far" problem for a CDMA system. The VLI technology includes advances in both hardware (optoelectronic processors) and software (processing algorithms). Each of these areas includes significant intellectual property that is patented or patent pending.

### BACKGROUND AND RECENT DEVELOPMENTS

Since mid-2000, Essex has utilized approximately \$6.6 million of private capital, including \$500,000 of proceeds from outstanding convertible debt, to enable its optoelectronic development team to focus primarily on developing commercial telecommunication products for next-generation optical networking and wireless systems. The Company has adopted a "smart revenue" policy for evaluating all proposals to provide its services to government agencies on a contract basis, thus using the funds from the private equity investors during the period 2000-2002 to substitute for revenues from government contract work that did not promote the Company's technology development objectives. In connection with its decision to raise private equity financing in mid 2000, Essex management decided to concentrate its initial commercialization efforts on the development of products for fiber optic networks based on the Company's experience in producing all-passive, inexpensive, small and robust WDM devices with very narrow channel spacing for national security applications.

### FOCUS ON OPTICAL NETWORK TELECOMMUNICATIONS MARKET

The first products that Essex is preparing for market are built around the Company's HYPERFINE WDM technology that provides a passive, low-cost method to increase bandwidth capabilities within fiber optic networks. These products under development have the potential to provide revolutionary capabilities in the telecommunications markets to which they are applied because they share certain key characteristics of the core HYPERFINE WDM technology:

4

- o All passive optical components;
- o Simple and small packaging, using standard manufacturing processes;
- o High density--50 MHz to 100 GHz spacing;
- o Superior response and flat filter shapes with excellent channel isolation;
- o Passband shapes that can be tailored for each application;
- o Low insertion loss;
- o Low temperature sensitivity; and
- o Fixed or tunable designs.

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

Essex believes that significant and unique opportunities exist for its HYPERFINE WDM technology within the optical networking telecommunications market. This market encompasses the long-haul, metro and access networks and the test equipment industry. The Company believes that its HYPERFINE WDM technology addresses the issues presented as carriers in each market move away from "legacy" networks with rigid bandwidth provisioning, significant service delays, truck rolls for required upgrades and extremely high life cycle costs to next-generation systems with provisioning by wavelength, tunable bandwidth, upgrades through installation of network cards and bandwidth on demand "pay as you go" infrastructures. HYPERFINE WDM technology promises to enable network operators to offer services more quickly, flexibly and inexpensively, while at the same time scaling to higher bandwidths, offering individual wavelengths, longer distance reach and supporting multiple protocols and topologies.

### DEMONSTRATION AND EARLY FIELD TRIALS OF HYPERFINE WDM TECHNOLOGY

Within six months of the September 2000 completion of its initial \$2 million private placement with new investors, the Company demonstrated a lab version of its HYPERFINE WDM device technology to representatives of select telecommunications companies. By mid-2001, Essex began field trials of its 16-channel, OC-48, 6.25 GHz channel spacing demultiplexer based on the HYPERFINE WDM technology. During 2002 the field trials continued and the uniqueness and value of this technology breakthrough gained increased attention in the industry. Currently, the devices, including design and engineering enhancements made in 2002, are being evaluated and tailored for the needs of telecommunications companies for application in back-bone fiber optic networks, metro and access systems, and testing equipment. In addition, several other products in the HYPERFINE WDM family of devices are currently in the design and engineering phase.

### EARLY SALES OF HYPERFINE WDM

These accomplishments have enabled Essex to meet with and discuss in depth its HYPERFINE WDM technology with a broad range of major companies engaged in the telecommunications industry. Many of these companies have agreed to field trial Essex's HYPERFINE WDM prototype and/or work with Essex on this technology in some fashion. In particular, Essex has announced relationships with Agilent, MIT/Lincoln Labs and Harris Corporation. Relationships with other companies have not yet been publicly announced due to nondisclosure agreements. The Company continued field trials in 2002 and will do so in 2003. Adoption of the technology by

5

the commercial telecommunications market has been slowed because of the continued unfavorable conditions in the telecommunications market. However, early orders have occurred in the U.S. Government market. These orders have included both prototype units for laboratory test networks and early production (alpha) units, based on advanced designs of the product. As a result, the commercial HYPERFINE WDM products have generated initial "early adopter" product orders in late 2002 with additional orders in early 2003. In addition, Essex expects to enter into one or more commercial alpha (early adopter) programs during 2003 that should result in limited production. Expanded production for fully operable HYPERFINE WDM devices will be timed to a recovery in the telecommunications equipment market, currently projected by many analysts for late 2003 or early 2004. The Company is continuing to develop prototype products for the remaining family of HYPERFINE WDM devices: laser locker/monitor, optical spectrum analyzer, optical add/drop multiplexer and optical CDMA, with a goal of placing these devices in field trials as well.

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

### MANUFACTURING RELATIONSHIP WITH HARRIS CORPORATION

In November 2001, Essex announced a relationship with Harris Corporation of Melbourne, Florida. The two companies have worked together on government contracts in the past and Harris has a well-deserved reputation as a manufacturer of optical networking products. The agreement established Harris as the primary manufacturer of the HYPERFINE WDM product line. This relationship has remained strong throughout 2002, as the product has advanced in design and form from prototype to early production model.

### OTHER TECHNOLOGY DEVELOPMENT

With HYPERFINE WDM progressing into field trials, Essex has turned its attention to completing research and development work on the other optical products. The Company is continuing the design work necessary for the commercialization of the Optical Processor Enhanced Receiver Architecture (OPERA(TM)) technology for wireless and DSL applications. Development of this technology has been impacted by the availability of development funds and the importance of a strong focus on the successful commercial launch of the first HYPERFINE WDM products. The Company is exploring the joint development of OPERA(TM) with several communications companies with the objective of leveraging Essex's optoelectronic experience with the communications companies' extensive market and technical experience. Essex also believes that OPERA(TM) has the capacity to provide enhance performance of Digital Subscriber Line (DSL) technology solutions and wireless network technology (802.11.x networks).

### NATIONAL SECURITY RELATED BUSINESS

Essex is uniquely positioned in the national security and intelligence community to deliver its technology and services for national security programs. In early 2002, Essex formed a National Programs Advisory Board to refine the Company's focus and to bring Essex talent and technology into the spotlight in the military intelligence community and to help showcase the dramatic benefits that Essex technology offers to today's intelligence community.

Guiding Essex on its National Programs Advisory Board are retired U.S. Army Lieutenant General Claudia J. Kennedy, retired U.S. Air Force Lieutenant General Kenneth A. Minihan and retired U.S. Navy Rear Admiral Don H. McDowell. Over the past year Essex has experienced significant growth in its National Programs initiative as it has leveraged its experience in optical

6

communications, signal processing, optical processing and image processing into several government contracts.

Essex's growth in providing technology and services to government agencies for national security programs is reflected in five main areas: our Advanced Optical Processor (AOP); our HYPERFINE WDM for defense applications; our Communications Services Division (CSD); our subsidiary Sensys Development Laboratories, Inc. (SDL) (System Engineering); and our Virtual Lens Imaging Technologies. Each area is poised for growth in 2003.

### ADVANCED OPTICAL PROCESSOR

The Advanced Optical Processor (AOP) being developed by Essex under contract for the United States Missile Defense Agency (MDA) is a third generation device which leverages spread spectrum signal analysis, wideband ELINT (electronic intelligence) and cryptologic exploitation. The AOP is used for ballistic missile defense environments. In these environments, not only must the missile target be identified using Range-Doppler Imaging (RDI), but other

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

items that are sent into the threat environment to make it harder to identify and "kill" the missile target must also be identified. Other items launched along with the missile include chaff, debris, closely spaced objects, jammers, spoofers and missile decoys. The AOP is a high performance radar signal processor that provides the true correlation-based image formation for ballistic missile defense in a cost-effective, low size, low weight and low power package.

In May 2002, Essex was awarded a five-year \$25 million IDIQ (indefinite delivery, indefinite quantity) contract from the U.S. Department of Defense (DoD), Naval Air Warfare Center to use its unique signal processing technology to enhance DoD radar programs. Under this contract, Essex has received \$6.1 million in task orders from MDA to design and deliver a next generation AOP. The system has several advantages compared to all-digital solutions including: elimination of wideband analog-to-digital (A/D) converters and significant computational software; simultaneous use of advanced waveforms that mitigate the effectiveness of counter measures; high dynamic range imagery; reduced hardware costs and capability for in-flight reprogrammability.

In this work for the MDA, Essex will design and fabricate a prototype AOP then test the device at MIT/Lincoln Labs and perform test planning for a field demonstration using the Alcor range radar system. Essex believes it is in the last steps prior to production of the AOP.

### HYPERFINE WDM PRODUCTS

HYPERFINE WDM technology and products are being proposed and applied to several different government requirements. These include multiline lasers, Optical CDMA systems, protection of very high speed communications links, fiber infrastructure enhancement and leverage, and "wavelength per user" architectures for Gigabit Ethernet networks. The Company and its customers continue to examine and find innovative ways to apply this powerful technology to a broad range of communications and networking applications.

### COMMUNICATIONS SERVICES DIVISION

In late 2002 Essex received a telecommunication services contract with a potential total multiyear contract value of \$30 million and formed the Communications Services Division

7

(CSD) to provide telecommunication systems support in the area of modernization, project management, integration and engineering analysis. The CSD will focus on supporting the intelligence community's mission-critical voice and video systems and associated infrastructure.

The CSD has hired over 35 new employees and expects to generate minimum revenue of \$3 million in 2003. The Company believes the CSD is poised for significant growth as the intelligence community focuses on upgrading its telecommunications infrastructure.

### SENSYS DEVELOPMENT LABORATORIES

Effective March 1, 2003 Essex acquired Sensys Development Laboratories, Inc. (SDL), a Maryland-based provider of systems and software engineering services to the intelligence community. SDL's skill and experience are highly complementary to Essex's core competencies in image and signal processing technology. This acquisition is part of an overall strategy to expand Essex resources and revenues to build a powerhouse of talent and technology founded on a solid base of customers and revenues. This acquisition adds over 25 employees, an estimated \$4 million to Essex 2003 revenues and a solid base of contracts

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

with excellent growth potential.

The Company believes that SDL's experience in providing systems engineering and software engineering for special customers in the intelligence community will greatly enhance Essex's ability to respond to urgent intelligence priorities.

### VIRTUAL LENS IMAGING TECHNOLOGIES

The Virtual Lens Imaging technology (VLI) is a patented high-resolution imaging system that leverages Essex's experience in synthetic aperture imagery and optoelectronic system development. The Company's VLI technology is based on the key features of its optoelectronic processor and its ability to calculate images from non-uniform data in real time.

The main areas for Essex's VLI technology are Synthetic Aperture Radar (SAR) and Ground Penetrating Radar (GPR). Under certain government contracts, Essex provides SAR image processing using its optoelectronic processors. SAR has become the bedrock of military imaging because it can penetrate clouds, foliage and the ground and Essex has pioneered the use of optoelectronic processors for SAR image processing. Essex has received and expended over \$2 million in Small Business Innovative Research (SBIR) awards to fund the continuing application of SAR processing techniques. The next step is to transition this technology into major government programs. The Company believes that its VLI technology for SAR and GPR processing has excellent prospects to transition to major government programs as such customers increasingly focus on military imaging.

### STRATEGY

Essex is pursuing a business strategy that is based on sound business practice and experience: CREATE ENDURING VALUE THROUGH GROWTH AND INNOVATION. In 2003 this strategy will emphasize the importance of financial stability along with affordable development of new products and services. Enduring value requires careful fiscal management and an executive team with the vision to create products and services that are responsive to customer needs, and the skill to balance the needs for both revenue generation and product innovation.

8

With the support of its private investors over the past two years, Essex accelerated the development of key technologies into market ready products. During this period, even though Essex experienced an operating loss, Essex's management team never lost sight of the importance of the principles of cost control and revenue generation. To meet our goals, revenue generating talent was diverted from direct customer work to focus on accelerating the development of HYPERFINE WDM and other technologies into products.

As has already been described, the result of this diversion from immediate revenue generation has been a resounding success. HYPERFINE WDM is now experiencing its first commercial sales and is positioned for a major launch when the telecommunications market returns from its current period of decline. In addition, other applications and products have emerged from this focused period of development and innovation.

Concurrent with the acceleration of product development, Essex has also been pursuing a program of growth. Just as new product development requires time to produce results, so does growth of the existing business. The results of the growth program are clear in the results reported here. Essex revenues nearly doubled from 2001 to 2002.



## Edgar Filing: ESSEX CORPORATION - Form 10KSB

### GROWTH PROGRAM

The growth program has four major elements:

- o Growth of existing projects and programs;
- o Creation of new projects and programs;
- o Product sales; and
- o Addition of products, projects, programs and capabilities through select acquisitions.

Essex is not relying on any one these growth elements to achieve its strategic goals for 2003 and beyond. Rather, the Company is working to ensure that all four of these elements contribute to an exciting expansion of the business in 2003, and a positioning for continued growth in future years.

Examples of the success of the growth program are the addition of at least \$4 million in 2003 revenue from the Communications Services Division, and the award of follow-on funding of \$3.7 million on an existing Missile Defense Agency contract. Also, the completion of the SDL acquisition will add over 25 people and resources and should provide a minimum of \$4 million of revenues in 2003.

Product sales offer a significant opportunity for growth, in both the government and commercial market places. Essex has several technology products that are in different stages of market deployment, ranging from early development to early deployment. None of Essex's products are yet in full scale production and market deployment. However, several are ready to move from early product stage to production within 2003, depending on market conditions, available funding, and demand.

### INNOVATION

The Essex team is expert at finding solutions and new approaches to persistent problems. Innovative use of optical processing has produced a number of technologies, including HYPERFINE

9

WDM and OPERA. The key to extracting value from these solutions remains going beyond first or single use applications of a technology to look for markets. This requires a robust internal process for managing and directing the resources that are available to develop technology and products.

In many technology companies, innovation is an occasional byproduct of product development and sales that is quickly cut during a tight market. At Essex, innovation and creativity are part of every project, program and product; they are a continuous part of how we approach products and projects, rather than being a fragile veneer.

However, it is also vitally important that technology and product development funds are used to best advantage. In a market where development funding is tight, this means that funds must be used to achieve maximum impact on the revenue generation potential. Necessarily, this will slow down the development of some products. Essex has established an internal process to examine and balance its investment in the development of new products.

### COMPETITIVE ADVANTAGE

Essex remains strongly committed to the photonics market. Part of the Essex strategy is to carefully manage the competitive advantage of its technology and products. This is being done by focusing on both the near-term and long-term issues that will impact the value offered by each product. To enhance near-term

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

competitive advantage, Essex is taking several steps:

- o Developing key partnerships and alliances;
- o Focusing on early customer opportunities to showcase the technology, particularly the U.S. Government;
- o Improving its financial position;
- o Working with its manufacturing partner to streamline the design and reduce production costs;
- o Working with key partners to address existing requirements in the market; and
- o Making revenue generation potential and Return On Investment (ROI) critical design parameters for the HYPERFINE WDM product line.

To position for long-term competitive advantage, Essex is taking these additional steps:

- o Securing and protecting its intellectual property rights with patent applications;
- o Examining each technology and product for additional applications and uses;
- o Continuing feature development to increase the already significant market differentiation of HYPERFINE WDM;
- o Working with key partners to respond to emerging requirements;
- o Integrating HYPERFINE WDM with different system vendor architectures to ensure interoperability; and
- o Making revenue generation potential and ROI critical design parameters for the HYPERFINE WDM product line.

10

Essex has a compelling competitive advantage in the current market because of its breakthrough technology and its well established revenue base. In addition, one of the few customers currently buying new telecommunications products is the U.S. Government. Essex has a long and successful history of supplying services, technology and products to the U.S. Government, and is successfully selling early HYPERFINE WDM units to a variety of Government organizations for different projects.

Essex plans to use its knowledge and experience in selling technology solutions to the U.S. Government in order to expand its relationship with key system vendors and other companies offering leading edge optical networking products and solutions. This will allow Essex to develop a strong relationship, founded in revenue generation, with a select group of technology leaders. As the commercial market for new solutions emerges from dormancy, these relationships will form the basis for a major launch of Essex products into the commercial telecommunications market.

11

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

### RISK FACTORS

Our business, results of operations and financial condition are subject to the risks set forth below. You should carefully consider these risks. Additional risks and uncertainties, including those that are not yet identified or that we currently think are insignificant, may also adversely affect our business, results of operations and financial condition.

### RISKS RELATED TO OUR FINANCIAL RESULTS

WE HAVE A HISTORY OF NET LOSSES AND WE MAY NOT ACHIEVE OR SUSTAIN PROFITABILITY.

We incurred a net loss for our fiscal years ended December 29, 2002 and December 30, 2001. The Company also incurred net losses in fiscal 2000 and 1998. In 1999, we reported a small net income. As of fiscal year end 2002, we had an accumulated deficit of \$14.4 million. Our revenues have increased from \$2.6 million in fiscal 2001 to \$4.5 million in fiscal 2002, primarily as a result of higher revenues on new and expanding U.S. Government programs. We expect to incur declining net losses and to operate at breakeven or better in the near term. Since September 2000, we have primarily funded our operations from the sale of equity securities. We also expect to incur significant but reduced product development and related expenses, and as a result we will need to increase revenues to achieve profitability.

IF OUR ACTUAL CAPITAL REQUIREMENTS VARY SIGNIFICANTLY FROM OUR EXPECTATIONS, WE MAY REQUIRE ADDITIONAL FINANCING SOONER THAN ANTICIPATED.

Between September 2000 and December 2002, we have received approximately \$6.6 million from Private Investors to pursue commercial applications of our optical and wireless communications technologies and resulting products. Additional funds are critical to our ability to continue to develop our commercial technologies and products because we currently experience and expect to continue to experience negative or breakeven cash flows. Our actual capital requirements depend upon several factors that are difficult to predict, including the timing of market acceptance of our commercial products under development, our ability to establish and expand our customer base for our commercial products and services, the level of expenditures for sales and marketing and general and administrative functions, the level of revenues from our U.S. Government contracts, the cost of offering additional services and other factors. If our capital requirements vary materially from those currently planned, we may require additional financing sooner than anticipated. There can be no assurance that such funding will be available or could be obtained in sufficient amounts or on terms acceptable to us, if at all, or on terms that would not include substantial dilution to our stockholders. Without timely financing, we would have to curtail or eliminate development and further reduce expenditures.

### RISKS RELATED TO OUR BUSINESS

WE CURRENTLY RELY ON SALES TO U.S. GOVERNMENT ENTITIES, AND THE LOSS OF SUCH CONTRACTS WOULD HAVE A MATERIAL ADVERSE IMPACT ON OUR OPERATING RESULTS.

During fiscal 2002, contracts with the U.S. Government, primarily the military services and other departments and agencies of the Department of Defense (DoD), accounted for approximately 97% or \$4.4 million of our revenues. In fiscal 2001, revenues on U.S. Government programs were \$2.2 million, or 84% of our revenues.

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

The loss or significant reduction in government funding of a large program in which we participate could also materially adversely affect our future revenues, earnings and cash flows and thus our ability to meet our financial obligations. U.S. Government contracts are conditioned upon the continuing approval by Congress of the amount of necessary spending. Congress usually appropriates funds for a given program each fiscal year even though contract periods of performance may exceed one year. Consequently, at the beginning of a major program, the contract is usually partially funded, and additional monies are normally committed to the contract only if appropriations are made by Congress for future fiscal years.

GOVERNMENT CONTRACTS CONTAIN UNFAVORABLE TERMINATION PROVISIONS AND ARE SUBJECT TO AUDIT AND MODIFICATION.

Companies engaged in supplying defense-related services and equipment to U.S. Government agencies are subject to certain business risks peculiar to the defense industry. These risks include the ability of the U.S. Government to unilaterally:

- o suspend us from receiving new contracts pending resolution of alleged violations of procurement laws or regulations;
- o terminate existing contracts;
- o reduce the value of existing contracts;
- o audit our contract-related costs and fees, including allocated indirect costs; and
- o control and potentially prohibit the export of our products.

Any of our U.S. Government contracts can be terminated by the U.S. Government either for its convenience or if we default by failing to perform under the contract. Termination for convenience provisions provide only for our recovery of costs incurred or committed, settlement expenses and profit on the work completed prior to termination. Termination for default provisions provide for the contractor to be liable for excess costs incurred by the U.S. Government in procuring undelivered items from another source.

OUR FIXED PRICE CONTRACTS MAY COMMIT US TO UNFAVORABLE TERMS.

We provide some of our products and services through fixed price contracts. Fixed price contracts provided 28% and 45% of our sales for fiscal 2002 and fiscal 2001, respectively. In a fixed price contract, the price is not subject to adjustment based on cost incurred to perform the required work under the contract. Therefore, we fully absorb cost overruns on fixed price contracts and this reduces our profit margin on the contract. Those cost overruns may result in a loss. A further risk associated with fixed price contracts is the difficulty of estimating sales and costs that are related to performance in accordance with contract specifications and the possibility of obsolescence in connection with long-term procurements. Failure to anticipate technical problems, estimate costs accurately or control costs during performance of a fixed price contract may reduce our profit or cause a loss on the contract.

THE EARLY STAGE OF DEVELOPMENT OF OUR OPTICAL AND WIRELESS TELECOMMUNICATIONS PRODUCTS MAKES IT DIFFICULT TO EVALUATE OUR FUTURE BUSINESS AND PROSPECTS.

We have traditionally derived our revenues from providing engineering and

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

signal processing services to the U.S. Government. While we continue to provide these services, over the past year we have continued to emphasize our work on developing new optoelectronics telecommunications products, including HYPERFINE WDM fiber optic communications technology and OPERA(TM). Because our development efforts on these products are ongoing and we have not begun commercial sales of these products, our revenue and profit potential is unproven and our limited history in the commercial telecommunications field makes it difficult to evaluate our business and prospects. We have difficulty accurately forecasting our commercial revenue, and we have limited historical financial data upon which to base operating production budgets. You should consider our business and prospects in light of the heightened risks and unexpected expenses and problems we may face as a company in an early stage of development in a rapidly changing industry.

WE MAY NOT SUCCESSFULLY IMPLEMENT OUR PLAN TO EXPAND INTO COMMERCIAL MARKETS.

Our revenues currently come from business with the DoD and other U.S. Government agencies. In addition to continuing to pursue these market areas, we will focus our technical capabilities and expertise on related commercial markets, including HYPERFINE WDM, OPERA(TM) and ImSyn(TM). These products are still under various stages of development. As such, these products are subject to certain risks and may require us to:

- o develop marketing, sales and customer support capabilities;
- o obtain customer and/or regulatory certification;
- o respond to rapid technological advances; and
- o obtain customer acceptance of these products and product performance.

Our efforts to enter commercial markets will require significant resources, including additional working capital and capital expenditures, as well as the use of management's time. Our efforts to sell our commercial telecommunications products, particularly our optical networking and broadband wireless communications products, also may depend to a significant degree on the efforts of independent distributors or communication service providers. We can give no assurance that these distributors or service providers will be able to market our products or their services successfully or that we will be able to realize a return on our investments in them. If we are not successful in addressing these risks or in developing these commercial business opportunities we may not be able to reach profitability.

OUR STRATEGY INVOLVES PURSUING STRATEGIC ACQUISITIONS AND INVESTMENTS THAT MAY NOT BE SUCCESSFUL.

Our business strategy includes acquiring or making strategic investments in other companies with a view to expanding our portfolio of products and services, acquiring new technologies, and accelerating the development of new or improved products. To do so, we may issue equity that would dilute our current shareholders' percentage ownership or incur debt or assume indebtedness. In addition, we may incur significant amortization expenses related to intangible assets. We also may incur significant write-offs of goodwill associated with our companies, businesses or

14

technologies that we acquire. Acquisitions and strategic investments involve numerous risks, including:

- o difficulties in integrating the operations, technologies, and products of

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

the acquired companies;

- o diversion of management's attention from our core business;
- o potential difficulties in completing projects of the acquired company;
- o the potential loss of key employees of the acquired company; and
- o dependence on unfamiliar or relatively small supply partners.

In addition, acquisitions and strategic investments may involve risks of entering markets in which we have no or limited direct prior experience, where competitors in such markets have stronger market positions and of obtaining insufficient revenues to offset increased expenses associated with acquisitions.

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 in optoelectronics and optical communications equipment. The loss of key personnel may prevent us from completing current development and restrict new development.

IF WE ARE UNABLE TO DEVELOP AND SUCCESSFULLY INTRODUCE NEW AND ENHANCED PRODUCTS THAT MEET THE NEEDS OF OUR CUSTOMERS IN A TIMELY MANNER, OUR REVENUES AND RESULTS OF OPERATIONS COULD BE ADVERSELY AFFECTED.

Our future success depends on our ability to anticipate our customers' needs and develop products that address those needs. Technological change in the optical networking industry is occurring at a rapid pace. As a result, we expect there to be frequent new product introductions, changes in customer requirements and evolving industry standards. We may not be able to develop new products or enhancements to our existing products in a timely manner, or at all. This would cause potential customers to seek other solutions, which would reduce our revenues and adversely affect our results of operations and financial condition.

We are currently developing many potential optical networking products through our research and development efforts. Although we have several products in development, we may not bring all of these potential products into commercial production due to:

- o changes in customer demand;
- o technological developments that make our products less competitive;
- o evolving industry standards; or
- o allocation of our limited resources to other products or technologies.

If we incur significant expenses developing products that we do not produce commercially, or if we select the wrong products or technologies to bring into commercial production, our revenues

15

and results of operations could be adversely affected and we may not recover significant research and development expenses.

ONE ASPECT OF OUR SUCCESS IS DEPENDENT ON OUR OPTOELECTRONICS TELECOMMUNICATIONS PRODUCTS BEING DEVELOPED. FAILURE OF OUR PRODUCTS TO OPERATE AS EXPECTED COULD DELAY OR PREVENT THEIR DEPLOYMENT AND SALE AND COULD SERIOUSLY IMPAIR OUR

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

### COMMERCIAL BUSINESS AND PROSPECTS.

Our future growth and success depends in part on the commercial success of our optical and wireless telecommunications products being developed. We have begun limited commercial sales of our products and have produced devices only to specifications required in order to conduct laboratory tests and field trials. Some of our devices have been deployed in field trials, others have been tested in our laboratories and still others are in earlier stages of development. If our products fail to operate as expected, this could delay or prevent their deployment and sale and could seriously impair our business and prospects.

THE MARKET WE INTEND TO SERVE IS HIGHLY COMPETITIVE AND WE MAY NOT BE ABLE TO ACHIEVE OR MAINTAIN PROFITABILITY.

Competition in the network communications equipment market is intense. This market has historically been dominated by such large companies as Alcatel, Ciena, Cisco Systems, JDS Uniphase, Lucent Technologies, NEC and Nortel Networks. Some of these companies, as well as emerging companies, are currently developing products that may compete in the specialty areas that Essex's technology is designed to address. We may face competition from other large communications companies who may enter our proposed markets. Many of these possible competitors have longer operating histories, greater name recognition, larger customer bases and greater financial, technical and sales and marketing resources than we do and may be able to undertake more extensive marketing efforts and adopt more aggressive pricing policies than we can. Due to the rapidly evolving markets in which we compete, additional competitors with significant market presence and financial resources may enter our markets, further intensifying competition.

IF WE ARE UNABLE TO PROTECT OUR INTELLECTUAL PROPERTY EFFECTIVELY, WE MAY BE UNABLE TO PREVENT THIRD PARTIES FROM USING OUR TECHNOLOGIES, WHICH WOULD IMPAIR OUR COMPETITIVE ADVANTAGE.

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 confidentiality or license agreements with our key employees and consultants and control access to and distribution of our software, documentation and other proprietary information. The Company believes that its patents and patent applications provide it with a competitive advantage. Accordingly, in the event the Company's products and technologies under development gain market acceptance, patent protection would be important to the Company's business. However, obtaining patent and other intellectual property protection may not adequately protect our rights or permit us to gain or keep any competitive advantage. For instance, unauthorized parties may attempt to copy, reverse engineer or otherwise obtain and use our patented products or technology without our permission, thus eroding or eliminating the competitive advantage we hope to gain through the exclusive rights provided by patent protection. Moreover, our existing patents and patents we have applied for (if granted) may not protect us against competitors that independently develop proprietary technologies that are substantially

16

equivalent or superior to our technologies, or design around our patents. In addition, the competitive advantage provided by patenting our technology may erode if we do not upgrade, enhance and improve our technology on an ongoing basis to meet competitive challenges.

Monitoring unauthorized use of our technology 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

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

proprietary rights as fully as in the United States. A complete description of Essex's patents and patent applications is contained in this Annual Report on Form 10-KSB.

THERE IS A RISK THAT OUR PATENT APPLICATIONS WILL NOT BE GRANTED.

Although we have filed several applications for U.S. patents relating to our HYPERFINE WDM and OPERA(TM) technologies, there is a risk that some or all of our pending applications will not issue as patents. Although we believe our patent applications are valid, the failure of our pending applications to issue as patents would affect the competitive advantage we hope to gain by obtaining patent protection and thus likely would have a material adverse effect upon our business and results of operations.

WE MAY BECOME INVOLVED IN INTELLECTUAL PROPERTY DISPUTES, WHICH COULD SUBJECT US TO SIGNIFICANT LIABILITY, DIVERT THE TIME AND ATTENTION OF OUR MANAGEMENT AND PREVENT US FROM SELLING OUR PRODUCTS.

We or our customers may be a party to litigation in the future to protect our intellectual property or to respond to allegations that we infringe on others' intellectual property. Any parties asserting that our products infringe upon their proprietary rights would force us to defend ourselves and possibly our customers against the alleged infringement. If we are unsuccessful in any intellectual property litigation, we could be subject to significant liability for damages and loss of our proprietary rights. Intellectual property litigation, regardless of its success, would likely be time consuming and expensive to resolve and would divert management's time and attention. In addition, we could be forced to do one or more of the following:

- o stop selling, incorporating or using our products that include the challenged intellectual property;
- o obtain from the owner of the infringed intellectual property right a license to sell or use the relevant technology, which license may not be available on reasonable terms, or at all; or
- o redesign those products that use the technology.

If we are forced to take any of these actions, our business could be seriously harmed.

IF NECESSARY LICENSES OF THIRD-PARTY TECHNOLOGY ARE NOT AVAILABLE TO US OR ARE VERY EXPENSIVE, OUR BUSINESS WOULD BE SERIOUSLY HARMED.

From time to time we may be required to license technology from third parties to sell or develop our products and product enhancements. These third-party licenses may not be available to us on commercially reasonable terms, if at all. Our inability to maintain or obtain any third-party license required to sell or develop our products and product enhancements could require us to

17

obtain substitute technology of lower quality or performance standards or at greater cost. If we were required to use technology with lower performance standards or quality, customers may stop buying our products and this would cause our revenues to decline. Similarly, if our costs rise significantly, customers may choose less expensive alternative products, which would cause our revenues to decline.

RISKS RELATED TO OUR COMPANY



## Edgar Filing: ESSEX CORPORATION - Form 10KSB

A LIMITED NUMBER OF STOCKHOLDERS ARE ABLE TO EXERT SIGNIFICANT INFLUENCE OVER MATTERS REQUIRING STOCKHOLDER APPROVAL.

Since September 2000, the Company has engaged in several private placements with a few private investors or their affiliates. We refer to these entities and their affiliates as the "Private Investors". The Private Investors hold collectively approximately 3,243,000 shares of common stock. The Private Investors also hold warrants exercisable under certain circumstances for up to two million shares of our common stock. Accordingly, the Private Investors could seek to exercise significant control and influence of certain actions requiring the approval of the holders of shares of our common stock. This concentration of ownership may also delay or prevent a change in control of Essex or reduce the price other investors might be willing to pay for our common stock. The interests of the Private Investors may conflict with the interests of other holders of our common stock.

THERE IS CURRENTLY ONLY A LIMITED PUBLIC MARKET FOR OUR COMMON STOCK AND OUR COMMON STOCK IS SUBJECT TO SIGNIFICANT PRICE fluctuations.

Our Common Stock is listed on the OTC Bulletin Board and there has only been a limited public market for our common stock. Unless and until our common stock is admitted for quotation on a national securities exchange or the Nasdaq Stock Market, it is unlikely that any active trading market will develop or, if any such market develops, that it will be sustained. Even if our common stock is admitted for quotation or listing on a national securities exchange, an active trading market may not develop unless the number of shares in the hands of the public is substantially increased. In addition, in the event our operating results fall below the expectations of public market analysts and investors, the market price of our common stock would likely be materially adversely affected.

The trading price of our common stock is likely to be volatile and sporadic. The stock market in general, and the market for technology companies in particular, has experienced extreme volatility. This volatility has often been unrelated to the operating performance of particular companies. Volatility in the market price of our common stock may prevent investors from being able to sell their common stock at or above the price such investors paid for their shares or at any price at all.

SALES BY THE PRIVATE INVESTORS OR OTHERS OF A SIGNIFICANT NUMBER OF SHARES OF COMMON STOCK COULD HAVE A MATERIAL ADVERSE EFFECT ON PREVAILING MARKET PRICES.

We cannot predict what effect, if any, that future sales of shares, or the availability of shares for future sale, will have on the market price of our common stock prevailing from time to time. Nevertheless, sales of substantial amounts of common stock by the Private Investors, or the perception that such sales may occur, could have a material adverse effect on prevailing market prices.

At March 14, 2003, we have outstanding approximately 8.9 million shares of our common stock, approximately 4,348,000 of which were sold or issued by us in private transactions in reliance upon exemptions from registration under the Securities Act. (See "Other Business Information - Recent Developments" section which follows for further information.) These privately placed shares may be sold only pursuant to an effective registration statement filed by Essex or an applicable exemption, including the exemption contained in Rule 144 promulgated under the Securities Act. In general, under Rule 144 as currently in effect, a shareholder, including an affiliate of Essex, may sell shares of common stock

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

after at least one year has elapsed since such shares were acquired from us or an affiliate of ours. The number of shares of common stock which may be sold within any three-month period is limited to the greater of one percent of the then outstanding number of shares of common stock or the average weekly trading volume in the common stock during the four calendar weeks preceding the date on which notice of such sale was filed under Rule 144. Certain other requirements of Rule 144 concerning availability of public information, manner of sale and notice of sale must also be satisfied. In addition, a shareholder who is not our affiliate (and who has not been our affiliate for 90 days prior to the sale) and who has beneficially owned shares acquired from us or our affiliate for over two years may resell the shares without compliance with the foregoing requirements under Rule 144.

The Private Investors have been granted rights to have up to 2,000,000 shares of common stock issuable upon exercise of warrants registerable under the Securities Act upon demand. In addition, 660,000 of the 4,348,000 shares of the privately issued common stock are covered by a registration statement on Form S-2 that allows the sale of these shares from time to time on the over-the-counter market or otherwise. We are also contractually obligated to register an additional 1.1 million shares of our common stock in early 2003. Sales of substantial amounts of common stock under Rule 144 or pursuant to the holder's registration rights, or the perception that such sales may occur, could have a material adverse effect on prevailing market prices.

WE ARE AT RISK OF SECURITIES CLASS ACTION LITIGATION DUE TO OUR EXPECTED STOCK PRICE VOLATILITY.

In the past, securities class action litigation has often been brought against companies after periods of volatility in the market price of their securities. Securities litigation could result in substantial costs and divert management's attention and resources from our business. Due to the potential volatility of our stock price, we may be the target of securities litigation in the future.

19

### RISKS RELATED TO THE OPTICAL NETWORKING INDUSTRY

THE OPTICAL NETWORKING INDUSTRY IS DEVELOPING, UNPREDICTABLE AND CHARACTERIZED BY RAPID TECHNOLOGICAL CHANGES AND EVOLVING STANDARDS. IF THIS INDUSTRY DOES NOT DEVELOP AND EXPAND AS WE ANTICIPATE, DEMAND FOR OUR PRODUCTS MAY FAIL TO GROW OR MAY DECLINE, WHICH WOULD ADVERSELY AFFECT OUR REVENUES.

The optical networking industry is developing and characterized by rapid technological change, frequent new product introductions, changes in customer requirements and continuously evolving industry standards. As a result, it is difficult to predict its potential size and future growth rate. In addition, evolving customer requirements and industry standards are uncertain. Our success in generating revenues in this evolving market will depend on our ability to:

- o establish, maintain and enhance our relationships with optical networking customers;
- o convince our customers of the benefits of next-generation optical networks; and
- o predict accurately, and develop our products to meet, evolving customer requirements and industry standards.

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

If we fail to address changing market conditions, sales of our products may fail to grow or may decline, which would adversely affect our revenues.

THE OPTICAL NETWORKING EQUIPMENT INDUSTRY IS EXPERIENCING DECLINING AVERAGE SELLING PRICES, WHICH COULD ADVERSELY AFFECT OUR REVENUES AND GROSS MARGINS.

The optical networking equipment industry is experiencing declining average selling prices as a result of increasing competition and greater unit volumes as communications service providers continue to deploy fiber optic networks. We anticipate that average selling prices will continue to decrease in the future in response to product introductions by competitors, price pressures from significant customers and greater manufacturing efficiencies. These average selling price declines may contribute to a decline in our gross margins, which could adversely affect our results of operations.

IF THE INTERNET AND COMMERCIAL DATA NETWORKS DO NOT CONTINUE TO EXPAND AND NEXT-GENERATION OPTICAL NETWORKS ARE NOT DEPLOYED AS RAPIDLY AS WE ANTICIPATE, SALES OF OUR PRODUCTS UNDER DEVELOPMENT MAY DECLINE, AND OUR REVENUES MAY BE ADVERSELY AFFECTED.

Our future commercial success depends on the continued growth of the Internet and commercial data networks for commerce and communications, the continuing increase in the amount of data transmitted over communications networks and the increasing adoption of, and improvements to, optical networks to meet the increased demand for bandwidth. If data networks, including the Internet, do not continue to expand as a widespread communications medium and commercial marketplace, the need for significantly increased bandwidth across networks and the market for optical networking products may not continue to develop. Future demand for the products we are developing is uncertain and will depend to a great degree on the continued growth and upgrading of optical networks.

20

BECAUSE OPTICAL PRODUCTS ARE COMPLEX AND ARE DEPLOYED IN COMPLEX ENVIRONMENTS, THE PRODUCTS WE ARE DEVELOPING MAY HAVE DEFECTS THAT WE DISCOVER ONLY AFTER FULL DEPLOYMENT, WHICH COULD SERIOUSLY HARM OUR BUSINESS.

Optical products are complex and are designed to be deployed in large quantities across complex networks. Because of the nature of the products, they can only be fully tested when completely deployed in large networks with high amounts of traffic. Customers may discover errors or defects in the hardware or the software, or products we develop may not operate as expected, after they have been fully deployed. If we are unable to fix defects or other problems that may be identified in full deployment, we would likely experience:

- o loss of, or delay in, revenue and loss of market share;
- o loss of existing customers;
- o difficulties in attracting new customers or achieving market acceptance;
- o diversion of development resources;
- o increased service and warranty costs;
- o legal actions by our customers; and

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

- o increased insurance costs.

The occurrence of any of these problems could seriously harm our business, financial condition and results of operations. Defects, integration issues or other performance problems could result in financial or other damages to our customers or could negatively affect market acceptance for the products we develop. Our customers could also seek damages for losses from us, which, if they were successful, would seriously harm our business, financial condition and results of operations. A product liability claim brought against us, even if unsuccessful, would likely be time consuming and costly and would put a strain on our management and resources.

21

### OTHER BUSINESS INFORMATION

#### FINANCING AND MARKETING

From September 2000 through December 2002, the Company has closed on several private placement funding transactions with the Private Investors aggregating \$6,650,000. The funds have been and are to be used substantially to patent, develop and commercialize its key leading-edge optical technologies, principally HYPERFINE WDM and OPERA(TM). (See "Management's Discussion and Analysis - Liquidity and Capital Resources" for further details about the private placements.)

Although constrained by limited financial resources, the Company's commercial marketing continues through use of internal staff and consultants. Military end-use marketing continues to be carried out by key employees, both directly to government agencies and indirectly through prime contractors, through the submission of proposals. Such proposals may be in response to customer requests while others are unsolicited proposals by the Company to potential customers to solicit new work.

#### ACQUISITION

Effective March 1, 2003, the Company acquired Sensys Development Laboratories, Inc. ("SDL") which has a history of profitable operations. This acquisition adds over 25 employees and is expected to increase Essex 2003 revenue by \$4 million. See Note 12 of Notes to Financial Statements for further details.

#### CONTRACT MIX

Services of the Company are performed under cost-reimbursement (67% and 39% in 2002 and 2001, respectively), fixed-price (28% and 45% in 2002 and 2001, respectively) or time and material (5% and 16% of revenues in 2002 and 2001, respectively) contracts and subcontracts. Fixed-price contracts have a greater degree of risk and higher potential reward than cost-type contracts since the Company is obligated to provide specific deliverables within the confines of the contracted price.

#### GOVERNMENT PROGRAMS

Historically, a significant portion of the Company's revenues have been derived from contracts, or subcontracts thereunder, with departments or agencies of the U.S. Government, primarily the military services and other departments and agencies of the Department of Defense (DoD). The percentage of the Company's total revenues derived from government DoD contracts or subcontracts was 94% and

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

74% in 2002 and 2001, respectively. Government military programs include work principally with the DoD Missile Defense Agency and the Army, and to a lesser extent with the Air Force, Navy and other DoD entities. The Company also works with industrial companies, engineering firms, equipment manufacturers and research institutions.

The Company's business is focused upon applications of its proprietary optoelectronics technology and products. During 2002, the Company worked on a \$2.4 million Missile Defense Agency program to design a next-generation advanced optoelectronic radar processor. In January 2003, the Company received a \$3.7 million dollar follow-on award to deliver the prototype processor by September 2003. The Company also worked in 2002 on several related

22

Phase 2 contracts for Small Business Innovation Research (SBIR) that deal with processor applications.

### PATENTS

The Company has a significant patent portfolio covering the core intellectual property for the Company's products. The portfolio is divided into four technology groups: HYPERFINE WDM, OPERATM, ImSynTM and Virtual Lens Imaging (VLI).

The Company believes that its patents and patent applications provide it with a competitive advantage. Accordingly, in the event the Company's products and technologies under development gain market acceptance, patent protection would be important to the Company's business. However, obtaining patent and other intellectual property protection may not adequately protect our rights or permit us to gain or retain any competitive advantage.

### HYPERFINE WDM

The first HYPERFINE WDM U.S. and International patent applications in certain countries were filed on October 13, 2000 and cover the use of the device as a receiver and demultiplexer for wavelength division multiplexing fiber optic networks. On January 22, 2002, U.S. and International patents were filed for use of HYPERFINE WDM technology as an add drop multiplexer and as an optical-code division multiple access (OCDMA) system. On March 19, 2002, U.S. and International patents were filed for HYPERFINE WDM as a wavelength locker. On July 2002, U.S. and International patents were filed for several other HYPERFINE WDM optical signal processing architectures. On November 19, 2002 a provisional U.S. application was filed for HYPERFINE WDM as a private and secure fiber optic transmission system.

### OPERATM

The OPERA(TM) application was filed with the U.S. and International Patent offices in certain countries on January 19, 2001. OPERA(TM) is an optoelectronic system for wireless communications that eliminates interfering signals using optical correlation combined with Multi-User Detection (MUD) algorithms.

### IMSYNTM

There are currently four ImSyn(TM) patents which have issued in the U.S. The first three patents cover the optoelectronic architecture and applications including accelerating image reconstructions for SAR and MRI. The claims in the fourth patent cover the sensing and reconstruction techniques of the Virtual Lens Microscope(TM) (VLM) technology which is part of the Company's VLI

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

technology family. The VLM has application for semiconductor inspection, ground penetrating radar, biomedical imaging, and non-destructive testing.

The first ImSyn(TM) U.S. Patent No. 5,079,555, "Sequential Image Synthesizer", includes 20 claims and expires January 7, 2009. The corresponding patent, No. 2,058,209, issued in Canada, expires November 25, 2011. The corresponding European patent for a subset of the claims, No. 0543064, is in force in Great Britain and Germany, and will expire November 21, 2011. Japan has issued Patent No. 3113338 for the same claims as the U.S. version and it will expire on October 29, 2011.

23

The second ImSyn(TM) patent, U.S. Patent No. 5,384,573, "Image Synthesis Using Time Sequential Holography" includes 157 claims and expires on January 24, 2012. Notification of allowance for a similar patent has been received from Canada. In France, Great Britain, Germany and Italy, Patent EP0617797B1 has been awarded for a subset of the claims in the U.S. patent and this patent expires December 17, 2012.

The third ImSyn(TM) U.S. Patent No. 5,736,958, "Image Synthesis Using Time Sequential Holography", with 8 claims expires April 7, 2015.

The fourth ImSyn(TM) U.S. Patent No. 5,751,243, "Image Synthesis Using Time Sequential Holography" with 21 claims expires May 11, 2015.

### VIRTUAL LENS IMAGING (VLI)

The ImSyn(TM) U.S. Patent No. 5,751,243 discloses the Virtual Lens Microscope, a 2D and 3D sensing and reconstruction technique called the Synthetic Aperture Microscope. On December 11, 2001, full U.S. and International utility patent applications entitled "Efficient Fourier Transform Algorithm For Non-Uniform Data" were filed.

### COMPETITION

Market acceptance of Essex optical products and technology has not yet been accomplished. The Company only began in late 2000 to announce the capabilities of its HYPERFINE WDM and OPERA(TM) technologies. Since then, the Company has been in contact with major telecommunications firms which are users and/or suppliers of equipment and services where the Company's technology would be beneficial. In the telecommunications industry, all the largest international telecommunications firms such as Lucent, Nortel, WorldCom, and all the largest international fiber optic equipment manufacturers and suppliers such as JDS Uniphase, Avanex, Ciena and Corvis, have the ability to produce competing products in the specialty areas which Essex technology and products would address. These companies are all larger and well established and have existing customer bases. Essex will likely have to partner with or license to one of the major industry entities in order to successfully introduce its technology and products.

In business areas where ImSyn(TM) processors could be utilized, Essex is just beginning to express itself outside the development laboratory and is not yet firmly in the market. ImSyn(TM) processors need enhancement development and testing which are not expected to occur until additional sources of funds for such development are obtained.

See "Risk Factors" for a discussion of the competitive risks faced by Essex.

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

### BACKLOG

As of December 29, 2002, the Company had a total backlog (funded and unfunded) of approximately \$52,100,000 as compared with \$1,920,000 at December 30, 2001. Of these amounts, backlog was \$600,000 funded and \$51,500,000 unfunded at yearend 2002 as compared to \$1,025,000 funded and \$895,000 unfunded at yearend 2001. In January 2003, the Company was awarded a follow-on contract for \$3.7 million. This effectively increased year-end 2002 backlog to \$55.8 million, of which \$4.1 million was funded and \$51.7 million was unfunded. In the unfunded

24

backlog, there is approximately \$19 million which is the remaining balance of a \$25 million U.S. Government Indefinite Delivery Indefinite Quantity 5 year contract through 2007 to provide technology to enhance DoD radar programs. There is also approximately \$27 million which is the remaining balance on the new \$30 million 10 year contract to provide telecommunications systems support to the intelligence community. Funded backlog generally consists of the sum of all contract amounts of work for which funding has been approved and contracts signed, less the value of work performed under such contracts. Even though such contracts are fully funded by appropriations, they are subject to other risks inherent in government and commercial contracts, such as termination for the convenience of the customer.

### RESEARCH AND DEVELOPMENT

The Company incurred and expensed approximately \$1,395,000 and \$2,417,000 in 2002 and 2001, respectively, on internally-funded research and development activities.

### EMPLOYEES

As of March 1, 2003, the Company had approximately 100 employees, of whom 76 were full-time employees.

## 2. DESCRIPTION OF PROPERTIES

### OFFICE FACILITIES

The Company leases its offices. The Company's corporate headquarters and offices are located in a one-story building at 9150 Guilford Road, Columbia, Maryland where the Company occupies approximately 18,000 square feet. The lease is through October 2005. The Company believes that its present facility is adequate for its current business needs.

### EQUIPMENT

The Company owns a variety of computer workstations, test equipment, microcomputers, printers and reproduction equipment. The Company leases computer workstations in support of customer work. Other computer hardware and software, test equipment, word processing and reproduction equipment used by the Company are leased.

### OPTOELECTRONICS LABORATORY

The laboratory consists of optical hardware and computer hardware and software, optical benches and test equipment. The laboratory includes the physical property which demonstrates and tests the capabilities of the Company's

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

patent-pending HYPERFINE WDM and OPERA(TM) and patented Image Synthesizer (ImSyn(TM)) technology as well as other optoelectronic devices and applications.

3. LEGAL PROCEEDINGS - None

4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS - None

25

### PART II

5. MARKET FOR THE COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

#### PRICE RANGE OF COMMON STOCK

The Company's common stock is quoted and trades are executed through the OTC Bulletin Board under the symbol "ESEX".

The following table sets forth the range of high and low sales prices of the Common Stock for the periods indicated. Sales prices include prices between dealers, may not reflect mark-ups, mark-downs or commissions and may not represent final actual transactions.

	2002		2001	
	High	Low	High	Low
First Quarter.....	\$ 8.25	\$ 3.60	\$ 5.25	\$ 2.22
Second Quarter.....	6.40	3.15	4.80	2.88
Third Quarter.....	4.25	2.15	6.70	3.30
Fourth Quarter.....	3.56	1.50	7.50	5.55

At March 3, 2003, there were approximately 1,500 beneficial owners of the Company's Common Stock, which includes 326 holders of record.

#### SALE OF UNREGISTERED SECURITIES

On December 17, 2002, the Company entered into a Convertible Note Purchase Agreement with one of its Private Investors. The Company issued a \$500,000 unsecured promissory note due December 31, 2004. The note bears interest at 10%; such interest may be deferred until maturity. The outstanding principal balance is convertible into common stock at \$2.60 per share. If the note is converted, then no interest shall be paid.

#### EQUITY COMPENSATION PLAN INFORMATION

The following table sets forth information as of December 29, 2002 with respect to compensation plans under which equity securities of the Company are authorized for issuance.

NUMBER OF SECURITIES TO BE ISSUED UPON EXERCISE	WEIGHTED AVERAGE EXERCISE PRICE OF OUTSTANDING	NUMBER REMAINING
--	---	---------------------



## Edgar Filing: ESSEX CORPORATION - Form 10KSB

PLAN CATEGORY	OF OUTSTANDING OPTIONS, WARRANTS AND RIGHTS	OPTIONS, WARRANTS AND RIGHTS	FUTU [EXCLUD
	(A)	(B)	
EQUITY COMPENSATION PLANS			
APPROVED BY SECURITY HOLDERS	1,462,218	\$3.41	
EQUITY COMPENSATION PLANS NOT APPROVED BY SECURITY HOLDERS (1)	436,500	\$2.98	
 TOTAL	 1,898,718		

26

### 6. MANAGEMENT'S DISCUSSION AND ANALYSIS OR PLAN OF OPERATION

MANAGEMENT'S DISCUSSION AND ANALYSIS OR PLAN OF OPERATION AND OTHER SECTIONS CONTAIN FORWARD-LOOKING STATEMENTS THAT ARE BASED ON MANAGEMENT'S EXPECTATIONS, ESTIMATES, PROJECTIONS AND ASSUMPTIONS. WORDS SUCH AS "EXPECTS", "ANTICIPATES", "PLANS", "BELIEVES", "ESTIMATES", VARIATIONS OF SUCH WORDS AND SIMILAR EXPRESSIONS ARE INTENDED TO IDENTIFY SUCH FORWARD-LOOKING STATEMENTS. THESE STATEMENTS ARE NOT GUARANTEES OF FUTURE PERFORMANCE AND INVOLVE CERTAIN RISKS AND UNCERTAINTIES THAT ARE DIFFICULT TO PREDICT. SEE "FORWARD LOOKING STATEMENTS."

#### OVERVIEW

The Company's business is focused upon applications of its proprietary optoelectronics technology and products for commercial and U.S. Government customers and signal processing technology for U.S. Government customers.

#### U.S. GOVERNMENT BUSINESS

The Company has experienced growth in its government business and has been actively pursuing growth strategies from internal efforts and external merger sources. In 2002, under a 5-year \$25 million Indefinite Delivery Indefinite Quantity contract, the Company received an initial funding of \$2.4 million to develop a next generation optoelectronic radar processor. This initial phase was substantially completed in 2002, and in January 2003 the Company received a \$3.7 million follow-on award to complete the design and deliver a prototype before the end of 2003. The Company received a new subcontract in November 2002 to provide at least \$3 million annually in telecommunications systems support in the area of modernization, project management, integration and engineering analysis. This work began in January 2003. This work is part of the multi-year \$30 million award to provide such services. The Company completed, effective March 1, 2003, the merger with SDL, a Maryland-based provider of technical engineering and software support services (see Note 12 in Notes to Financial Statements). This merger adds over 25 highly skilled professionals to the Essex staff and an expected \$4 million of annual revenue in 2003.

#### FINANCING

Since September 2000, the Company has closed on several equity private

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

placement funding transactions with the Private Investors. Under the terms of the equity funding, the Company has received over \$6.1 million and the Private Investors and their affiliates received approximately 3.2 million shares of common stock. The Private Investors were also issued warrants for an additional two million shares of common stock. The warrants can be exercised for a nominal price under certain terms and conditions. See Note 11 of Notes to Financial Statements for further details. The Company has also received proceeds of \$500,000 from the private placement of outstanding convertible debt.

### COMMERCIAL BUSINESS

The Company's primary use of the private placement funds has been to patent, develop and commercialize its key leading-edge optical technologies, principally the fiberoptic HYPERFINE WDM

27

devices and wireless OPERA(TM) technology. The purpose of the HYPERFINE WDM device is to increase the number of usable communications channels within a single optical fiber. The purpose of OPERA(TM) is TO increase capacity and improve voice and data quality of wireless systems. These inventions arose from the Company's work and expertise in the optical device and communications fields.

The Company has prototypes of the HYPERFINE WDM technology which are being demonstrated to prospective strategic partners and investors. The Company began placing prototypes of its initial HYPERFINE WDM devices in field trials by potential customers in late September 2001. The Company is developing simulations of its OPERA(TM) wireless receiver device technology and is undertaking TO determine the various market entry points for such device technology. The Company is also holding discussions with various established commercial entities that are in the wireless communications market in order to determine the best commercial applications of such technology.

The development of the commercial HYPERFINE WDM devices required a diversion of labor resources from revenue generation in 2002 and 2001. Because of the emphasis on development, the Company was unable in 2002 and 2001 to maintain customer programs of sufficient volume and to expand such work to consistently achieve an overall breakeven or better level of operations on such revenues.

### STATUS

In light of the continued unfavorable conditions in the telecommunications markets, the commercial market for the Company's optical technologies and products has been slow in developing. As a consequence, the Company has opted to significantly expand the government business base. The expansion should reduce the net losses and permit the Company to move to breakeven and eventual profitable operations while still continuing commercial development and marketing, although at a reduced level to the extent funds are available. The Company is also pursuing sales of its commercial HYPERFINE WDM and other optical technologies in the government marketplace.

### CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of financial statements requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an on-going basis, the Company re-evaluates its estimates,

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

including those related to revenue recognition, research and development, inventories, intangible assets, income taxes and contingencies. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. The Company believes the following critical accounting policies affect its more significant judgments and estimates used in the preparation of its financial statements.

28

### REVENUE RECOGNITION

For U.S. Government customers, the Company provides services and products under a variety of contract types, namely cost plus fixed fee (CPFF), fixed price (FP) and time & material (T&M). The Company recognizes revenue on CPFF contracts to the extent costs are incurred plus a proportionate amount of fee earned. The Company must determine that the costs incurred are proper and that the ultimate costs incurred will not overrun the expected funding on the contract and still deliver the scope of work proposed. Even though CPFF contracts generally do not require that the Company expend costs in excess of the contract value, such expenditures may be required in order to achieve customer satisfaction and receive additional work. In addition, since the reimbursable costs include both direct and indirect costs, the Company must determine that the indirect costs are properly accounted and allocated in accordance with government cost accounting requirements. On FP level-of-effort service contracts, the Company must determine that the costs incurred provide a proportionate amount of progress on the work and that the ultimate costs incurred will not overrun the funding on the contract and the required hours will be delivered. On FP product orders, revenue is not recorded until the Company determines that the goods have been delivered and accepted by the customer. On T&M contracts, revenue is recognized to the extent of billable rates multiplied by hours delivered, plus other direct costs. This is generally the most straightforward revenue computation. The Company uses historical technical performance experience where applicable to evaluate progress on FP and CPFF jobs. The Company uses historical government audit experience in the indirect cost area to evaluate the propriety and expected recovery of its indirect costs on CPFF contracts.

### RESEARCH AND DEVELOPMENT

The Company has expended significant amounts for research and development for new products. In accordance with generally accepted accounting principles, the Company expenses and does not capitalize and add to inventory such expenditures until product marketability and viability have been established. There is a judgmental aspect to this decision which could result in the over expensing in some cases or the early capitalization in other cases of such expenditures.

### 2002 COMPARED TO 2001

Revenues were \$4,506,000 and \$2,642,000 for fiscal 2002 and 2001, respectively, an increase of 71%. The increase was primarily due to the increased revenue from the \$2.4 million new U.S. Government Missile Defense Agency program for design of a next generation advanced optoelectronics radar processor (AOP) demonstration unit, including procurement of necessary materials and equipment. This initial phase commenced May 2002 and was substantially

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

completed by December 2002. In January 2003, the Company received a \$3.7 million follow-on award to complete the design and prototype unit by September 2003.

There was an operating loss of \$2,150,000 in fiscal 2002 compared to an operating loss of \$3,577,000 in fiscal 2001. Cost of goods sold and services (COGS) provided as a percentage of revenue for fiscal 2002 was 57.6% as compared to 50.8% in fiscal 2001. In 2001, the major component of COGS was direct labor and associated costs. In 2002, due to the new AOP program referenced above, there was a significant increase in the direct materials and equipment component of COGS. The Company receives a higher markup on direct labor than direct material and equipment costs.

29

Research and development (R&D) decreased in fiscal 2002 to approximately \$1,395,000 from approximately \$2,417,000 in fiscal 2001. Expenditures for the initial HYPERFINE WDM development in 2001 required significant outside vendor costs for materials and non-recurring engineering. Such costs have declined in 2002 and are also being managed against available funding. The majority of the R&D costs were incurred on efforts related to optical telecommunications technology. The Company expects, subject to the availability of funds, to continue its R&D spending in the optical and telecommunications areas in 2003.

The Company increased slightly its selling, general and administrative expenses ("SG&A"), particularly in marketing for the optoelectronics and telecommunications new device business areas. The Company has also incurred higher expenses related to the Company's efforts to raise additional financing in 2002. Overall, SG&A expenses remain high relative to the revenue volume as the Company seeks to commercialize its optoelectronic telecommunications products and services. The high SG&A expenses contributed to the operating losses in 2002 and 2001.

Overall, the 2002 net loss declined primarily due to the decline in R&D expenses and the higher revenue volume covering a greater portion of fixed expenses.

### CORPORATE MATTERS

The Company recognized a \$750,000 charge in 2001 from the beneficial conversion feature of convertible preferred stock. As proceeds were received from the sale of preferred stock in 2001 and 2000, the Company recognized the pro rata beneficial conversion feature on the convertible preferred stock as a deemed dividend for purposes of computing net loss attributable to common stockholders and per share amounts. The total recorded was \$750,000 in 2001 and \$1,250,000 in 2000. This imputed amount had no effect on net loss (from operations) or cash flows.

The Company had net interest expense of \$24,000 in 2002 compared to net interest income of \$8,000 in 2001. In 2001, the Company netted \$26,000 of interest income, primarily from the temporary investment of funds from the private placements, against \$18,000 of interest expense. In 2002, there were less funds available for investment.

The Company is in a net operating loss (NOL) carryforward position. No provision or benefit from income taxes was recognized in 2002 or 2001.

30

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

### LIQUIDITY AND CAPITAL RESOURCES

The Company evaluates its liquidity position using various factors as is discussed below:

SELECTED FINANCIAL DATA		
(\$ Thousands)		
as of		
	----- December 29, 2002 -----	December 30, 2001 -----
Total Assets	\$ 2,343	\$ 1,553
	=====	=====
Working Capital	\$ 222	\$ 112
	=====	=====
Current Ratio	1.15:1	1.13:1
	=====	=====
Capital Leases	\$ 76	\$ 191
Convertible Debt	500	--
	-----	-----
Total Debt/Financing	\$ 576	\$ 191
	=====	=====
Stockholders' Equity	\$ 358	\$ 645
	=====	=====

The net cash provided by financing activities in 2002 and 2001 is from the Company completing several private placements of equity securities or debt instruments to its Private Investors or their affiliates. The Company received \$2,000,000 and \$3,000,000 in 2002 and 2001, respectively, from these private placements. The funds have been used primarily for the development of the optical telecommunications device technologies.

The net cash used in operating activities has resulted from the significant losses incurred by the Company in 2002 and 2001, primarily due to the expenditures for development of its optoelectronics products and services. The Company's working capital and current ratio at the end of fiscal 2002 and 2001 were comparable. The Company plans to continue R&D spending on optoelectronics in 2003 at a reduced level. The reduced R&D spending is intended to allow the Company to operate at an overall breakeven or better level. Such R&D would be financed with internally generated funds. In order to increase spending levels, the Company would need additional funds.

The Company is seeking to establish joint ventures or strategic partnerships, including the licensing of its technologies to major industrial concerns to facilitate these goals. The Company might also seek additional funds under appropriate terms from private sources to further finance development and to achieve initial market penetration. If the Company does not successfully commercialize its optoelectronic products or raise substantial additional working capital, then these events could have a significant adverse effect on the Company's future operating results and financial position.

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

The Company has a working capital financing arrangement with an accounts receivable factoring organization. Under such an agreement, the factoring organization may purchase certain of the Company's accounts receivable subject to full recourse against the Company in the case of nonpayment by the customers. The Company generally receives 85%-90% of the invoice amount at the time of purchase and the balance when the invoice is paid. The Company is charged an

31

interest fee and other processing charges, payable at the time each invoice is paid. There were \$169,000 of funds advanced as of December 29, 2002.

The Company believes that it will be able to meet its 2003 funding requirements and obligations from the aforementioned sources of revenue and capital, and if necessary, by cost reductions. However, there can be no assurances in this regard and we expect that it will need significant financing in the future if we pursue acquisitions or increased product development is to occur.

THE PRECEDING PARAGRAPHS CONTAIN FORWARD-LOOKING STATEMENTS AND THE FACTORS AFFECTING THE ABILITY OF THE COMPANY TO MEET ITS FUNDING REQUIREMENTS AND MANAGE ITS CASH RESOURCES INCLUDE, AMONG OTHER THINGS, THE MAGNITUDE AND TIMING OF PRODUCT SALES AND THE MAGNITUDE OF FIXED COSTS, ALL OF WHICH INVOLVE RISKS AND UNCERTAINTIES THAT ARE DIFFICULT TO PREDICT.

### INFLATION

The Company, because of its substantial activities in professional services and product development, is more labor intensive than firms involved primarily in industrial activities. To attract and maintain higher caliber professional staff, the Company must structure its compensation programs competitively. The wage demand effect of inflation is felt almost immediately in its costs; however, the net effect during the years presented is minimal.

The inflation rate in the United States generally has little impact on the Company's cost-reimbursable type contracts and other short-term contracts. For longer-term, fixed-price type contracts, the Company endeavors to protect its margins by including cost escalation provisions or other specific inflation protective terms in these contracts.

### 7. FINANCIAL STATEMENTS

See Item 13(a) (1) in Part III of this Form 10-KSB.

### 8. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

32

## PART III

### 9. DIRECTORS, EXECUTIVE OFFICERS, PROMOTERS AND CONTROL PERSONS; COMPLIANCE WITH SECTION 16(A) OF THE EXCHANGE ACT

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

### DIRECTORS, EXECUTIVE OFFICERS, PROMOTERS AND CONTROL PERSONS

The Directors\* and executive officers elected by the Board are:

NAME	AGE	POSITION
Leonard E. Moodispaw	60	President; Chief Executive Officer and Director (3)
Terry M. Turpin	60	Sr. Vice President; Chief Scientist and Director
Joseph R. Kurry, Jr.	52	Sr. Vice President; Treasurer and Chief Financial Officer
Matthew S. Bechta	49	Vice President
Gerald J. Davieau	46	Vice President
Caroline S. Pisano	36	Vice President, Finance and General Counsel(4)
Craig H. Price	53	Vice President
Kimberly J. DeChello	42	Chief Administrative Officer and Secretary
H. Jeffrey Leonard	48	Chairman; Director (3)
Frank E. Manning	84	Chairman Emeritus; Director (2)
John G. Hannon	65	Director (2)
Robert W. Hicks	65	Director (1)
Ray M. Keeler	71	Director (1)(2)
Marie S. Minton	41	Director (1)
Arthur L. Money	63	Director (4)

\* Directors are elected annually at the Company's Annual Meeting of Stockholders.

- (1) Member of the Audit Committee of the Board of Directors.
- (2) Member of the Compensation Committee of the Board of Directors.
- (3) Member of the Executive Committee of the Board of Directors.
- (4) Ms. Pisano was succeeded by Mr. Money on the Board. She will continue with the Company as Vice President of Finance and General Counsel.

Leonard E. Moodispaw, President, Chief Executive Officer and Director of the Company, rejoined Essex in 1998. He held the office of Chief Operating Officer until September 2000 when he was elected Chief Executive Officer. Mr. Moodispaw was an employee and consultant with Essex during 1988 to 1993. From 1988 to 1993, he was President of the former Essex subsidiary, System Engineering and Development Corporation (SEDC), and later served as Essex Chief Administrative Officer and General Counsel. From April 1994 to April 1998, Mr. Moodispaw was President of ManTech Advanced Systems International, Inc. (MASI), a subsidiary of ManTech International Corporation. From 1965 to 1978, Mr. Moodispaw was a senior manager in the National Security Agency (NSA). Following NSA he was engaged in the private practice of law. He is the Founder of the Security Affairs Support Association (SASA) that brings government and industry together to solve problems of mutual interest. He also serves as a member of the Board of Directors of Griffin Services, Inc., a subsidiary of Vosper-Thornycroft, a UK company. He received a Bachelor of Science degree in Business Administration from the American University in Washington, D.C. in 1965, a Master of Science degree in Business Administration from George Washington University in Washington D.C. in 1969 and Juris Doctor in Law from the University of Baltimore, Maryland in 1977. He enjoys chocolate and Key West, Florida; is growing older but not up.

Terry M. Turpin was elected a Director of the Company in January 1997. He is Senior Vice President and Chief Scientist for the Company, positions he has held since 1996. He joined Essex through merger with SEDC where he was Vice President and Chief Scientist from September 1984 through June 1989. Currently

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

Mr. Turpin is the Chairman of the Industrial Advisory Board for the Opto-electronic Computing Center at the University of Colorado. From December 1983 to September 1984 he was an independent consultant. From 1963 through December 1983, Mr. Turpin was employed by the NSA. He was Chief of the Advanced Processing Technologies Division for ten years. He holds patents for optical computers and adaptive optical components. Mr. Turpin represented NSA on the Tri-Service Optical Processing Committee organized by the Under Secretary of Defense for Research and Engineering. He received a Bachelor of Science degree in Electrical Engineering from the University of Akron in 1966 and a Master of Science degree in Electrical Engineering from Catholic University in Washington, D.C. in 1970.

Joseph R. Kurry, Jr. joined Essex Corporation in March 1985. He is Treasurer and Chief Financial Officer, positions he has held since 1985, and a Senior Vice President. Mr. Kurry was controller of ManTech International Corporation from December 1979 to March 1985. Mr. Kurry graduated in 1972 from Georgetown University, in Washington, D.C. and is a Certified Public Accountant. Mr. Kurry and his wife spend time with their college-age daughters and teenage son in supporting various sports and school programs for Lehigh University in Pennsylvania and Gonzaga College High School in Washington, D.C. The family prefers summer vacations at the shore in Sea Girt, New Jersey.

Matthew S. Bechta was elected Vice President in October 1993. As Director of the Processing Systems Group, Mr. Bechta is responsible for the development and delivery of signal processing solutions to government, industry and commercial customers. Mr. Bechta joined Essex in 1989 with the merger of Essex and SEDC. As one of the founders of SEDC, he served in various technical and management capacities since incorporation in 1980. From 1975-1980, Mr. Bechta was employed by NSA as a systems engineer. Mr. Bechta holds a Master of Science degree in Computer Science from the Johns Hopkins University and a Bachelor of Science degree in Electrical Engineering from Spring Garden College, Pennsylvania.

Gerald J. Davieau joined Essex in 1989 as a result of the merger of Essex with SEDC, and was elected Vice President in November 1997. Mr. Davieau, Director of Telecomm Systems Engineering, is responsible for design and analysis of wireless satellite applications. He is listed on 14 Motorola patents and 6 patent disclosures from work on Iridium(R) and Teledesic(TM) satellite programs. Mr. Davieau was employed by SPACECOM in Gaithersburg, Maryland, 1982-1987. He served in the U.S. Army from 1978 to 1982. Mr. Davieau holds a Bachelor of Science degree in Electrical Engineering from Lehigh University and a Master of Science degree in Electrical Engineering from the University of Maryland.

Caroline Pisano was a Director of the Company from September 2000 through January 2003 and now serves as General Counsel and Vice President of Finance. From August 1996 to March 2000, Ms. Pisano served as General Counsel and the Chief Financial Officer of Pulse Engineering, Inc., an information security and signal processing company which was sold in March 2000. From August 1992 to July 1996 Ms. Pisano served as a senior transactional attorney with the law firm of Wechsler, Selzer, and Gurvitch, Chartered. From June 1988 to August 1990, Ms. Pisano, a certified public accountant, practiced public accounting and specialized in high tech and biotech companies. Ms. Pisano received her Juris Doctor from the Washington College of Law at the American University in Washington, D.C. Ms. Pisano graduated Magna Cum Laude with a

Bachelor of Science degree in Accounting from the University of Maryland. Although Ms. Pisano is an attorney and an accountant she likes to follow Jimmy Buffett's advice and "say what you mean, mean what you say". Ms. Pisano has four



## Edgar Filing: ESSEX CORPORATION - Form 10KSB

children and enjoys volunteering at her kid's public school.

Craig H. Price was elected Vice President in October 1993. Dr. Price, Director of Optical Solutions, is responsible for the development of products utilizing Essex patented optical technologies. Dr. Price joined Essex in 1989 as a result of the merger of Essex and SEDC. Dr. Price had joined SEDC in 1985, with varied assignments in engineering, analysis and advanced technologies. Previously, he served in numerous technical and project positions in the U.S. Air Force during the period 1974 - 1985, and he was awarded the Distinguished Service Medal. Dr. Price holds a Bachelor of Science degree in Electrical Engineering from Kansas State University, a Master of Science degree in Electrical Engineering from Purdue University and a Doctor of Philosophy degree in Electrical Engineering, from Stanford University. He is an avid tennis player and enjoys vacations with his wife and daughter to warm climates in winter months.

Kimberly J. DeChello joined Essex in May 1987 and has served in various administrative and management capacities. She was appointed Chief Administrative Officer in November 1997 and Corporate Secretary in January 1998. Ms. DeChello is responsible for administration, human resources, investor relations and industrial insurance. Ms. DeChello received a Master of Science degree in Human Resources Management in 2000 from the University of Maryland. Ms. DeChello also holds an Associate of Arts degree in Accounting and a Bachelor of Science degree in Criminal Justice/Criminology from the University of Maryland. Kim's current favorite hobbies are dancing and bird watching. She teaches West Coast Swing classes and competes as a ProAm student. She participates in the Smithsonian's Neighborhood Nest Watch Program where she assists in catching, banding and data collection of birds in her backyard.

Frank E. Manning, Chairman Emeritus, is the founder of the Company. Mr. Manning has served as a Director of the Company since its organization in 1969. Mr. Manning has been a special advisor to the CEO for the past six years. Mr. Manning received a Bachelor of Science degree in Economics from Franklin and Marshall College in 1942, and a Masters of Letters degree in Industrial Relations from the University of Pittsburgh in 1946.

H. Jeffrey Leonard, was elected a Director of the Company in September 2000 and Chairman of the Board in December 2000. Dr. Leonard is the President and founding shareholder of Global Environment Fund. Dr. Leonard has served as Chairman of the Investment Committee for GEF's five investment funds. He has extensive experience in international private equity and project finance investments, and advanced technology investments in the energy, environmental, applications software, intelligent systems engineering, biological and medical fields. Dr. Leonard also serves as a member of the Board of Directors of the National Cooperative Bank, Measuring and Monitoring Inc., Aurora Flight Sciences Corp., Athena Technologies, Sorbent Technologies, International Pepsi-Cola Bottlers Limited and Global Forest Products Company Limited. He has served as an advisor to the U.S. Office of Technology Assessment and is a member of the Board of Directors of the National Council for Science and the Environment. Dr. Leonard received a Bachelor of Arts degree in 1976 from Harvard College, a Master of Science degree from the London School of Economics in 1978 and a Doctor of Philosophy degree from Princeton University in 1984. Jeff is the Chairman of the Board of Beacon House, a not-for profit community development and education organization assisting children and their families in Northeast

Washington D.C. In 2002, he broke his over-40 personal record in the Baltimore Marathon with a time of 3 hours and 40 minutes.

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

John Hannon was elected a Director of the Company in September 2000. He is a partner in Networking Ventures, L.L.C., a privately held company dedicated to investing in and guiding technology companies in the expanding optical and information security sector. From 1979 to March 2000, Mr. Hannon served as the Chief Executive Officer of Pulse Engineering, Inc. an information security and signals processing company which was sold in March 2000. Mr. Hannon started his business career in 1963 after serving in the United States Marine Corps. Since that time, he has been involved in numerous entrepreneurial ventures. He is a Director of the Armed Forces Communications and Electronics Association (AFCEA).

Robert W. Hicks was elected a Director of the Company in August 1988. He has been an independent consultant since 1986. During this period he was engaged for three and one-half years by the State of Maryland Deposit Insurance Fund Corporation, Receiver of several savings and loan associations, first as an Agent and then as a Special Representative (both court-approved positions). He was a principal officer and stockholder in Asset Management & Recovery, Inc., a consulting firm which primarily provided services, directly and as a subcontractor, to the Resolution Trust Corporation and law firms engaged by the Resolution Trust Corporation. Mr. Hicks is also a Director and the Corporate Secretary of the Kirby Lithographic Company, Inc. In 1998 he formed Hicks Little Company, LLC for the purpose of conducting consulting activity.

Ray M. Keeler was elected a Director of the Company in July 1989. Since 1986, he has been an independent consultant to both industry and government organizations in areas related to national and tactical intelligence programs. Mr. Keeler served on the Board of Directors of SEDC from December 1987 through April 1989. From 1988 to November 1995, he was President of CRYTEC, Inc., a service company providing management, business development and technical support to companies involved in classified cryptologic projects. Since December 1995, he has been a consultant to companies involved in national technical intelligence programs. From 1982 to 1986, Mr. Keeler was Director of Program and Budget for the NSA. He received a Bachelor of Arts degree from the University of Wisconsin-Madison in 1957.

Arthur L. Money was elected a Director of the Company in January 2003. Mr. Money served as the Assistant Secretary of Defense for Command, Control, Communication and Intelligence (C3I) from October 1999 to April 2001. Prior to his Senate confirmation in that role, he was the Senior Civilian Official, Office of the ASD (C3I) from February 1998. Mr. Money also served as the Chief Information Officer for the Department of Defense from 1998 to 2001. From 1996 to 1998, he served as Assistant Secretary of the Air Force for Research, Development and Acquisition, and as CIO for the Air Force. Prior to his government service, Mr. Money held senior management positions with ESL Inc., a subsidiary of TRW, and the TRW Avionics and Surveillance Group. Mr. Money serves on numerous United States Government Panels, Boards and Commissions. He additionally serves on many U.S. Company Boards, Advisory Boards and Advisory Groups. Mr. Money received a Bachelor of Science degree in Mechanical Engineering from San Jose State University in 1965, a Master of Science degree in Mechanical Engineering from University of Santa Clara in 1970 and attended the Harvard Executive Security Program in 1985 and the Program for Senior Executives at the Massachusetts Institute of Technology in 1988.

Marie S. Minton was elected a Director of the Company in December 2000. Ms. Minton is a Managing Director and the Chief Financial Officer of Global Environment Fund, an international private equity investment management firm. Ms. Minton has been a member of the senior management team of GEF since 1994. Before joining GEF, Ms. Minton was the Vice President of Finance for Clean Air

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

Capital Markets Corporation, a boutique investment banking firm. Prior to that, Ms. Minton was an Audit Manager in the Entrepreneurial Services Division of Ernst & Young from 1986 through 1993. Ms. Minton graduated from the University of Virginia in 1986 with a Bachelor of Science degree in Commerce. She is a member of the Virginia Society and American Institute of Certified Public Accountants, the Washington Society of Investment Analysts (WSIA) and the Association for Investment Management and Research. Ms. Minton is a Certified Public Accountant and a Chartered Financial Analyst. She teaches accounting for the WSIA CFA education program, volunteers as a Girl Scout leader and enjoys riding her horse, Abner, in her free time.

### SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") requires the Company's officers and directors, and persons who own more than ten percent of a registered class of the Company's equity securities (the "Reporting Persons"), to file reports of ownership and changes in ownership of equity securities of the Company with the Securities and Exchange Commission ("SEC"). Officers, directors, and greater than ten percent shareholders are required by SEC regulations to furnish the Company with copies of all Section 16(a) forms that they file.

Based solely upon a review of Forms 3 and Forms 4 furnished to the Company pursuant to Rule 16(a)-3 under the Exchange Act during its most recent fiscal year and Forms 5 with respect to its most recent fiscal year, the Company believes that all such forms required to be filed pursuant to Section 16(a) of the Exchange Act were timely filed by the Reporting Persons during the fiscal year ended December 29, 2002.

37

## 10. EXECUTIVE COMPENSATION

### SUMMARY COMPENSATION TABLE

The following table sets forth the aggregate cash compensation paid for services rendered to the Company during the last three fiscal years by the Company's Chief Executive Officer and the Company's four other most highly compensated executive officers who served as such at the end of the last fiscal year and whose total compensation exceeds \$100,000.

Name and Principal Position	Year	ANNUAL COMPENSATION			LONG-TERM COMPENSATION
		Salary (\$) (1)	Bonus (\$)	Other Annual Compensation (\$)(2)	AWARDS Securities Underlying Options/SARs (#)
Leonard E. Moodispaw President and CEO	2002	175,032	0	0	30,000
	2001	175,032	0	1,616	85,000
	2000	136,404	0	0	100,000
Terry M. Turpin Senior Vice President and Director	2002	155,064	0	0	20,000
	2001	155,064	0	4,652	70,000
	2000	134,496	25,000	4,785	52,000

Edgar Filing: ESSEX CORPORATION - Form 10KSB

Joseph R. Kurry, Jr.	2002	134,992	0	0	10,000
Treasurer, Senior Vice	2001	134,992	0	4,050	40,000
President and CFO	2000	122,804	15,000	4,134	61,500
Craig H. Price	2002	134,992	0	0	7,500
Vice President	2001	134,992	0	4,050	25,000
	2000	114,184	15,000	3,875	27,500
Matthew S. Bechta	2002	130,000	0	0	7,500
Vice President	2001	130,000	0	3,900	25,000
	2000	112,840	10,000	3,685	31,000

DEFINED CONTRIBUTION RETIREMENT PLAN

The Company has a qualified defined contribution retirement plan, the Essex Corporation Retirement Plan and Trust, which includes a 401(k) salary reduction feature for its employees. The Plan calls for an employer matching contribution of up to 3% of eligible employee compensation under the salary reduction feature and a discretionary contribution as determined by the Board of Directors. No discretionary contribution was made by the Company to the Retirement Plan for

38

1999 - 2002. The total authorized contribution under the matching contribution feature of the Plan was approximately \$78,000 in 2002. All employee contributions are 100% vested at all times and Company contributions vest based on length of service. Vested contributions are distributable and benefits are payable only upon death, disability, retirement or break in service. Participants may request that their accrued benefits under the Section 401(k) portion of the Plan be allocated among various investment options established by the Plan administrator.

The Company contributions under the Retirement Plan for the persons referred to in the Summary Compensation Table are included in that Table.

EMPLOYEE INCENTIVE PERFORMANCE AWARD PLAN

The Company has an Employee Incentive Performance Award Plan under which bonuses are distributed to employees. All employees are eligible to receive such awards under flexible criteria designed to compensate for superior division and individual performance during each fiscal year. Awards are generally recommended annually by management and approved by the Board of Directors. Such awards may be constrained by overall Company performances. There was approximately \$141,000 awarded in 2000, including the \$65,000 awarded to persons named in the Summary Compensation Table. No awards were made in 2001 and 2002.

RESTRICTED STOCK BONUS PLAN

Essex has a Restricted Stock Bonus Plan under which up to 50,000 shares of the Company's common stock may be reserved for issuance to non-employee members of the Board of Directors and key employees of the Company selected by the Board of Directors. Shares of restricted stock may be issued under the Plan subject to forfeiture during a restriction period, fixed in each instance by the Board of Directors, whereby all rights of the grantee to the stock terminate upon certain conditions such as cessation of continuous employment during the restriction

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

period. Upon expiration of the restriction period, or earlier upon the death or substantial disability of the grantee, the restrictions applicable to all shares of restricted stock of the grantee expire. The Plan also provides that loans may be advanced by the Company to a grantee to pay income taxes due on the taxable value of shares granted under the Plan. Such loans must be evidenced by an interest bearing promissory note payable five (5) years after the date of the loan, and be secured by shares of stock of the Company (which may be restricted stock) having a fair market value equal to 200 percent of the loan.

During 2000 - 2002, no awards were made. There were approximately 4,000 shares remaining in the plan as of December 29, 2002.

### OPTIONS TO PURCHASE SECURITIES

The Company has established several Essex Corporation Stock Option and Appreciation Rights Plans ("Plans"). The Plans provide for the grant of options to purchase shares of common stock of the Company, no par value per share (the "Common Stock"), which qualify as incentive stock options ("Incentive Options") under Section 422 of the Internal Revenue Code of 1986, as amended (the "Code"), to persons who are employees, as well as options which do not so qualify ("Non-Qualified Options") to be issued to persons or consultants, including those who are not employees. The Plans also provide for grants of stock appreciation rights ("SARs") in connection with the grant of options under the Plans. The exercise price of an Incentive Option under the Plans may not be

39

less than the "fair market value" of the shares of Common Stock at the time of grant; the exercise price of Non-Qualified Options and the appreciation base price of SARs are determined in the discretion of the Board of Directors except that the SAR appreciation base price may not be less than 50% of the fair market value of a share of Common Stock on the grant date with respect to awards to persons who are officers or directors of the Company. The Plans reserve 1,860,518 shares of Common Stock for issuance. As of February 28, 2003, options for 1,383,118 shares of the Company's Common Stock were outstanding at exercise prices ranging from \$1.00 - \$6.07. As of February 28, 2003, there remained 477,400 shares available for future grants of options or SARs.

The Company grants non plan non-qualified options from time to time directly to certain parties. The Company issued such options for 85,000 shares to its President and 40,000 to its Chief Financial Officer/Treasurer in 2001. Also in 2001, such options for 45,000 shares were issued to another employee of the Company. There were no grants of non plan non-qualified options in 2002.

The following table shows for the fiscal year ended December 29, 2002 for the persons named in the Summary Compensation Table, information with respect to options to purchase Common Stock granted during 2002.

### STOCK OPTIONS GRANTS FOR FISCAL YEAR ENDED DECEMBER 29, 2002

NAME	NUMBER OF SECURITIES UNDERLYING OPTIONS GRANTED (#)	% OF TOTAL OPTIONS/SARS GRANTED TO EMPLOYEES IN FISCAL YEAR	EXERCISE OR BASE PRICE (\$/SH)	EXPIRATION DATE
------	---	--	--------------------------------------	--------------------

Edgar Filing: ESSEX CORPORATION - Form 10KSB

=====				
Leonard E. Moodispaw	30,000 (1)	25.2	2.36	11/12/12
Terry M. Turpin	20,000 (2)	16.8	2.36	11/12/12
Joseph R. Kurry, Jr.	10,000 (1)	8.4	2.36	11/12/12
Craig H. Price	7,500 (1)	6.3	2.36	11/12/12
Matthew S. Bechta	7,500 (1)	6.3	2.36	11/12/12

The following table shows for the fiscal year ended December 29, 2002 for the persons named in the Summary Compensation Table, information with respect to option/SAR exercises and fiscal year end values for unexercised options/SARs.

40

AGGREGATED OPTION/SAR EXERCISES AND FY-END OPTION/SAR VALUES  
TABLE FOR FISCAL YEAR ENDED DECEMBER 29, 2002

NAME	SHARES ACQUIRED ON EXERCISE (#)	VALUE REALIZED (\$)	NUMBER OF	VALUE OF
			SECURITIES UNDERLYING UNEXERCISED OPTIONS AT FY-END (#)	UNEXERCISED IN-THE-MONEY OPTIONS AT FY-END (\$) (1)
			EXERCISABLE/ UNEXERCISABLE	EXERCISABLE/ UNEXERCISABLE
=====				
Leonard E. Moodispaw	---	---	360,500/15,000	386,925/11,850
Terry M. Turpin	---	---	171,100/28,900	134,120/15,800
Joseph R. Kurry, Jr.	1,000 5,750	\$2,150 \$2,588	168,250/5,000	133,002/3,950
Craig H. Price	---	---	102,250/3,750	76,763/2,963
Matthew S. Bechta	3,000	\$12,420	95,900/3,750	79,695/2,963

REMUNERATION OF DIRECTORS

The Company's Board of Directors generally meets quarterly. Additionally,

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

the By-Laws provide for special meetings and, as also permitted by Virginia law, Board action may be taken without a meeting upon unanimous written consent of all Directors. There are two Board members not employed by the Company who receive a maximum of \$1,500 for each Board or \$750 for each Board Committee Meeting attended. In 2002 the Board held three meetings; the entire membership of the Board was present at all of the meetings except one where one director was absent. Directors affiliated with the Private Investors have waived any board fees.

41

### 11. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table and accompanying notes set forth as of December 29, 2002, information with respect to the beneficial ownership of the Company's voting securities by (i) each person or group who beneficially owns more than 5% of the voting securities, (ii) each of the directors of the Company, (iii) each of the officers of the Company named in the Summary Compensation Table, and (iv) all directors and executive officers of the Company as a group.

Name and Address of Beneficial Owner*	Amount and Nature of Beneficial Ownership (1)	Percentage of Outstanding Share Common Stock Beneficially Ow
H. Jeffrey Leonard (2)	1,629,700	20.9
Marie S. Minton (3)	1,598,200	20.5
John G. Hannon (4)	1,355,491	17.4
Terry M. Turpin (5)	449,793	5.7
Leonard E. Moodispaw (6)	418,150	5.1
Caroline S. Pisano (7)	408,000	5.2
Joseph R. Kurry, Jr. (8)	208,359	2.6
Frank E. Manning (9)	146,775	1.9
Matthew S. Bechta (10)	140,137	1.8
Craig H. Price (11)	117,478	1.5
Robert W. Hicks (12)	76,700	1.0
Ray M. Keeler (13)	51,500	**
James P. Gregory (14)	1,598,200	20.5
Harry Letaw, Jr. (15)	669,859	8.6
GEF Optical Investment Company, LLC (16)	1,598,200	20.5

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

Global Environment Capital Co. LLC ("GECC") (16)	1,598,200	20.5
Global Environment Strategic Technology Partners ("GESTP") (16)	1,598,200	20.5
The Hannon Family LLC (17)	1,346,666	17.3
All Directors and Executive Officers as a Group (14 persons) (18)	5,111,923	57.0
-----		

12. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS - None

43

13. EXHIBITS AND REPORTS ON FORM 8-K (a) (1) Financial Statements

Report of Independent Auditors		
Balance Sheet		
Statements of Operations		
Statements of Changes in Stockholders' Equity		
Statements of Cash Flows		
Notes to Financial Statements		54 -
(2) Exhibits		
(i) None.		
(ii) Exhibit 3(i) - Articles of Incorporation		
Exhibit 3(i) - Articles of Amendment		
Exhibit 3(ii) -By-Laws, as amended		
(iii) Exhibit 4 - Instruments defining the Rights of Holders		
4.3 Specimen of Common Stock Certificate		
(iv) Exhibit 10 - Material Contracts		
10.3 Restricted Stock Bonus Plan		
10.4 Option and Stock Appreciation Rights Plan		
10.6 Pension Plan and Trust Agreement		
10.7 Defined Contribution Retirement Plan		
10.8 Incentive Performance Award Plan		
10.11 Option Agreement between the Company and Rumsey Associates Limited Partnership		
10.13 Registration Rights Agreement		
10.15 1996 Stock Option and Appreciation Rights Plan		
10.22 1998 Stock Option and Appreciation Rights Plan		
10.23 1999 Stock Option and Appreciation Rights Plan		
10.24 2000 Stock Option and Appreciation Rights Plan		
10.25 Flex Lease Agreement Between PHL-OPCO, LP, as Landlord and Essex Corporation, As Tenant, Rivers 95 Columbia, MD		
10.26 2001 Stock Option and Appreciation Rights Plan		
10.27 2002 Stock Option and Appreciation Rights Plan		
(v) Exhibit 23 - Consent of Experts and Counsel		
23.1 Consent of Independent Auditors		
(vi) Exhibit 99		
(a) Securities Purchase Agreement dated September 7, 2000		
(b) Registration Rights Agreement dated September 7, 2000		
(c) Common Stock Purchase Warrants dated September 12, 2000		



Edgar Filing: ESSEX CORPORATION - Form 10KSB

(b) Reports on Form 8-K  
None.

Separately, the Chief Executive Officer and the Chief Financial Officer submitted certifications to the SEC required by Section 906 of the Sarbanes - Oxley Act of 2002.

-----

44

14. CONTROLS AND PROCEDURES

Based on their most recent evaluation, which was completed within 90 days of the filing of this Form 10-KSB, the Company's Chief Executive Officer and Chief Financial Officer believe the Company's disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) are effective to ensure that information required to be disclosed by the Company in this report is accumulated and communicated to the Company's management, including its principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure. There were no significant changes in the Company's internal controls or other factors that could significantly affect these controls subsequent to the date of their evaluation and there were no corrective actions with regard to significant deficiencies and material weaknesses.

45

SIGNATURES

In accordance with Section 13 or 15(d) of the Exchange Act, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ESSEX CORPORATION  
(Registrant)

By: /S/ LEONARD E. MOODISPAW

-----

Leonard E. Moodispaw  
President and Chief Executive Officer;  
Principal Executive Officer  
March 25, 2003

By: /S/ JOSEPH R. KURRY, JR.

-----

Joseph R. Kurry, Jr.  
Senior Vice President, Treasurer and Chief Financial Officer;  
Principal Financial and Accounting Officer  
March 25, 2003

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

Edgar Filing: ESSEX CORPORATION - Form 10KSB

/S/ JOHN G. HANNON

-----  
John G. Hannon, Director  
March 25, 2003

/S/ MARIE S. MINTON

-----  
Marie S. Minton, Director  
March 25, 2003

/S/ ROBERT W. HICKS

-----  
Robert W. Hicks, Director  
March 25, 2003

/S/ ARTHUR L. MONEY

-----  
Arthur L Money, Director  
March 25, 2003

/S/ RAY M. KEELER

-----  
Ray M. Keeler, Director  
March 25, 2003

/S/ LEONARD E. MOODISPAW

-----  
Leonard E. Moodispaw, Director  
March 25, 2003

/S/ H. JEFFREY LEONARD

-----  
H. Jeffrey Leonard, Director  
March 25, 2003

/S/ TERRY M. TURPIN

-----  
Terry M. Turpin, Director  
March 25, 2003

/S/ FRANK E. MANNING

-----  
Frank E. Manning, Director  
March 25, 2003

46

CERTIFICATIONS

I, Leonard E. Moodispaw, certify that:

1. I have reviewed this annual report on Form 10-KSB of Essex Corporation;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d -14) for the registrant and have:
  - a. designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

- entities, particularly during the period in which this annual report is being prepared;
- b. evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
  - c. presented in the annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
- a. all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Dated March 25, 2003

/S/ LEONARD E. MOODISPAW

-----  
Leonard E. Moodispaw  
President and Chief Executive Officer

47

### CERTIFICATIONS

I, Joseph R. Kurry, Jr., certify that:

1. I have reviewed this annual report on Form 10-KSB of Essex Corporation;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

in Exchange Act Rules 13a-14 and 15d -14) for the registrant and have:

- a. designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b. evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
  - c. presented in the annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
- a. all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Dated March 25, 2003

/S/ JOSEPH R. KURRY, JR.

-----  
Joseph R. Kurry, Jr.  
Senior Vice President, Treasurer and  
Chief Financial Officer

48

### REPORT OF INDEPENDENT AUDITORS

To the Board of Directors and Stockholders of Essex Corporation:  
Columbia, Maryland

We have audited the accompanying balance sheet of Essex Corporation as of December 29, 2002 and the related statements of operations, changes in stockholders' equity and cash flows for the fiscal years ended December 29, 2002 and December 30, 2001. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Essex Corporation as of December 29, 2002 and the results of its operations and its cash flows for the fiscal years ended December 29, 2002 and December 30, 2001 in conformity with accounting principles generally accepted in the United States of America.

Stegman & Company

Baltimore, Maryland  
February 21, 2003

49

### ESSEX CORPORATION BALANCE SHEET AS OF DECEMBER 29, 2002

ASSETS	
CURRENT ASSETS	
Cash	\$ 1,030,247
Accounts receivable, net	565,626
Prepayments and other	106,987
	-----
	1,702,860
PROPERTY AND EQUIPMENT	
Computers and special equipment	948,455
Furniture, equipment and other	219,112
	-----
	1,167,567
Accumulated depreciation and amortization	(845,360)
	-----
	322,207
OTHER ASSETS	
Patents, net	296,407
Other	21,725
	-----
	318,132
TOTAL ASSETS	\$ 2,343,199
-----	=====

# Edgar Filing: ESSEX CORPORATION - Form 10KSB

## LIABILITIES AND STOCKHOLDERS' EQUITY

CURRENT LIABILITIES	
Advance from accounts receivable financing	\$ 169,432
Accounts payable	659,977
Accrued wages and vacation	233,940
Capital leases	71,261
Accrued retirement	65,000
Billings in excess of costs	135,000
Other accrued expenses	146,041
	-----
	1,480,651
LONG-TERM DEBT	
Convertible note payable	500,000
Capital leases, net of current portion	4,390
	-----
Total Liabilities	1,985,041
	-----
COMMITMENTS AND CONTINGENCIES (NOTE 6)	
STOCKHOLDERS' EQUITY	
Common stock, no par value; 25 million shares authorized; 7,790,398 shares issued and outstanding	12,706,520
Additional paid-in capital	2,000,000
Prepaid warrant	50,000
Accumulated deficit	(14,398,362)
	-----
Total Stockholders' Equity	358,158
	-----
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 2,343,199
	=====

50

### ESSEX CORPORATION STATEMENTS OF OPERATIONS FOR THE FIFTY-TWO WEEK FISCAL YEARS ENDED DECEMBER 29, 2002 AND DECEMBER 30, 2001

	2002	2001
	-----	-----
Revenues	\$ 4,506,419	\$ 2,641,776
Cost of goods sold and services provided	(2,593,677)	(1,342,444)
Research and development	(1,394,784)	(2,416,837)
Selling, general and administrative expenses	(2,668,117)	(2,459,631)
	-----	-----

Edgar Filing: ESSEX CORPORATION - Form 10KSB

Operating Loss	(2,150,159)	(3,577,136)
Interest (expense) income, net	(23,458)	7,937
	-----	-----
Loss Before Income Taxes	(2,173,617)	(3,569,199)
Provision for income taxes	--	--
	-----	-----
Net Loss	(2,173,617)	(3,569,199)
Beneficial conversion feature of convertible preferred stock	--	(750,000)
	-----	-----
Net Loss Attributable to Common Stockholders	\$ (2,173,617)	\$ (4,319,199)
	=====	=====
Weighted Average Number of Shares Outstanding	7,410,647	6,493,665
	=====	=====
Basic Loss Per Common Share	\$ (0.29)	\$ (0.67)
	=====	=====
Diluted Loss Per Common Share	\$ (0.29)	\$ (0.67)
	=====	=====

51

ESSEX CORPORATION  
STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY  
FOR THE FISCAL YEARS ENDED DECEMBER 29, 2002 AND DECEMBER 30, 2001

	Common Stock		Preferred Stock		Prepaid Warrant	Add Pa Ca
	Shares	Amount	Shares	Amount		
	-----	-----	-----	-----	-----	-----
BALANCE, DECEMBER 31, 2000	4,570,361	\$ 6,496,320	312,500	\$ 1,250,000	\$ --	\$1,2
Preferred stock issued	--	--	187,500	750,000	--	
Beneficial conversion feature of preferred stock	--	--	--	--	--	7
Common stock issued	538,462	2,250,000	--	--	--	

Edgar Filing: ESSEX CORPORATION - Form 10KSB

Stock options exercised	49,182	91,806	--	--	--	--
Retired shares/cashless stock option tender	(2,400)	(17,082)	--	--	--	--
Stock compensation	--	49,000	--	--	--	--
Net loss	--	--	--	--	--	--
BALANCE, DECEMBER 30, 2001	5,155,605	8,870,044	500,000	2,000,000	--	2,000,000
Preferred stock converted	2,000,000	2,000,000	(500,000)	(2,000,000)	--	--
Common stock issued	511,538	1,400,003	--	--	--	--
Stock options exercised	81,350	143,398	--	--	--	--
Retired shares/cashless stock option tender	(6,261)	(26,250)	--	--	--	--
Stock compensation	31,500	269,325	--	--	--	--
Prepaid warrant issued	--	--	--	--	100,000	100,000
Prepaid warrant converted	16,666	50,000	--	--	(50,000)	(50,000)
Net loss	--	--	--	--	--	--
BALANCE, DECEMBER 29, 2002	7,790,398	\$12,706,520	--	\$ --	\$ 50,000	\$2,000,000

52

ESSEX CORPORATION  
STATEMENTS OF CASH FLOWS  
FOR THE FISCAL YEARS ENDED DECEMBER 29, 2002 AND DECEMBER 30, 2001

	2002	2001
	-----	-----
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net Loss	\$ (2,173,617)	\$ (3,569,199)
Adjustments to reconcile Net Loss to Net Cash Used In Operating Activities:		
Depreciation and amortization	147,401	193,117
Stock compensation expense	269,325	49,000
Inventory valuation reserve	29,983	60,000
Other	(91)	(1,047)
Change in Assets and Liabilities:		
Accounts receivable	(280,977)	(119,035)
Inventory	--	(40,126)
Prepayments and other	(30,480)	(43,536)



Edgar Filing: ESSEX CORPORATION - Form 10KSB

Accounts payable	346,236	181,807
Other assets and liabilities	74,603	(32,227)
	-----	-----
Net Cash Used In Operating Activities	(1,617,617)	(3,321,246)
	-----	-----
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of property and equipment, net	(29,677)	(80,918)
	-----	-----
Net Cash Used In Investing Activities	(29,677)	(80,918)
	-----	-----
CASH FLOWS FROM FINANCING ACTIVITIES:		
Sale of common stock	1,450,003	2,250,000
Convertible note payable	500,000	--
Sale of preferred stock	--	750,000
Exercise of stock options	117,148	74,724
Short-term borrowings under receivables financing, net	169,432	--
Prepaid warrant	50,000	--
Payment of capital lease obligations	(177,220)	(120,016)
	-----	-----
Net Cash Provided By Financing Activities	2,109,363	2,954,708
	-----	-----
CASH AND CASH EQUIVALENTS		
Net increase (decrease)	462,069	(447,456)
Balance - beginning of year	568,178	1,015,634
	-----	-----
Balance - end of year	\$ 1,030,247	\$ 568,178
	=====	=====

53

ESSEX CORPORATION  
NOTES TO FINANCIAL STATEMENTS  
FOR THE FISCAL YEARS ENDED DECEMBER 29, 2002 AND DECEMBER 30, 2001

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND OTHER IMPORTANT FACTORS

These statements cover Essex Corporation (the "Company"). Certain amounts for prior years have been reclassified or recalculated to conform to the 2002 presentation.

REPORTING YEAR

The Company is on a 52/53 week fiscal year ending the last Sunday in December. Years 2002 and 2001 were 52-week fiscal years.

USE OF ESTIMATES

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

amounts of revenues and expenses during the reporting period. Estimates are used when accounting for uncollectible accounts receivable, inventory obsolescence and valuation, depreciation and amortization, intangible assets, employee benefit plans and contingencies, among others. Actual results could differ from those estimates.

### IMPORTANT BUSINESS RISK FACTORS

The Company has historically been principally a supplier of technical services under contracts or subcontracts with departments or agencies of the U.S. Government, primarily the military services and other departments and agencies of the Department of Defense. The Company's revenues have been and continue to come from such programs. The Company is focusing and expanding in this business area. See Note 12 - Subsequent Event.

In recent years, the Company has expended significant funds to transition into the commercial marketplace, particularly the productization of its proprietary technologies in telecommunications and optoelectronic processors. In June 2000, the Company announced that it had filed applications to secure patent protection for innovative technologies in two communications device families: Fiberoptic HYPERFINE WDM (wavelength division multiplexing) devices and wireless optical processor enhanced receiver architecture. Since September 2000, the Company has received over \$6 million in financing from its Private Investors or affiliates to advance its programs to capitalize upon these inventions. The long-term success of the Company in these areas is dependent on its ability to successfully develop and market products related to its communications devices and optoelectronic processors. The success of these efforts is subject to changing technologies, availability of additional financing, competition, and, ultimately, market acceptance.

Primarily due to the expenditures for development and marketing of its optoelectronics products and services, particularly the optical telecommunications device technologies, the Company incurred significant losses in 2002 and 2001. To the extent funds are available, the

54

### ESSEX CORPORATION

#### NOTES TO FINANCIAL STATEMENTS

FOR THE FISCAL YEARS ENDED DECEMBER 29, 2002 AND DECEMBER 30, 2001

Company plans to continue research and development spending in 2003 in the optoelectronics operations.

The Company is seeking to establish joint ventures or strategic partnerships including licensing of its technologies with major industrial concerns to facilitate these goals. The Company will also seek additional funds under appropriate terms from private sources to continue to finance development and to achieve initial market penetration. Significant delays in the commercialization of the Company's optoelectronic products, failure to market such products or failure to raise substantial additional working capital would have a significant adverse effect on the Company's future operating results and future financial position.

### CONTRACT ACCOUNTING

Revenues consist of services rendered on cost-plus-fixed-fee, time and materials and fixed-price contracts. Revenue on cost-plus-fixed-fee contracts (approximately 67% and 39% of total revenues in 2002 and 2001,

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

respectively) is recognized to the extent of costs incurred plus a proportionate amount of fee earned. Revenue on fixed-price contracts (approximately 28% and 45% of total revenues in 2002 and 2001, respectively) is recognized on the percentage-of-completion method of accounting based on costs incurred in relation to the total estimated costs. Revenue on time and materials contracts (approximately 5% and 16% of total revenues in 2002 and 2001, respectively) is recognized to the extent of billable rates multiplied by hours delivered, plus other direct costs. Anticipated losses are recognized as soon as they become known. A portion of the Company's business is with agencies of the U.S. Government and such contracts are subject to audit by cognizant government audit agencies. Furthermore, while such contracts are fully funded by appropriations, they may be subject to other risks inherent in government contracts, such as termination for the convenience of the government. Because of the inherent uncertainties in estimating costs and the potential for audit adjustments by U.S. Government agencies, it is at least reasonably possible that the estimates will change in the near term.

### INCOME TAXES

Deferred income taxes are recorded under the asset and liability method whereby deferred tax assets and liabilities are recognized for the future tax consequences, measured by enacted tax rates, attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss carryforwards. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period the rate change becomes effective. Valuation allowances are recorded for deferred tax assets when it is more likely than not that such deferred tax assets will not be realized.

### INVENTORY

Inventory costs include purchased parts, labor and manufacturing overhead. Inventories are stated at the lower of cost or market. Cost is determined using the first-in, first-out (FIFO)

55

ESSEX CORPORATION  
NOTES TO FINANCIAL STATEMENTS  
FOR THE FISCAL YEARS ENDED DECEMBER 29, 2002 AND DECEMBER 30, 2001

method. Management monitors the market value of its inventory and records valuation allowances when deemed necessary.

### PROPERTY AND EQUIPMENT

Property and equipment are stated at cost. Depreciation is calculated using straight-line methods based on useful lives as follows:

Leasehold improvements	Life of lease
Production and special equipment	3 to 5 years
Furniture and equipment	3 to 5 years

Repairs and maintenance are charged to expense as incurred. When assets are retired or otherwise disposed of, the asset and related allowance for depreciation are eliminated from the accounts and any resulting gain or loss is reflected in income.

### PATENT COSTS

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

Patent costs include legal and filing fees covering the various patents which have been issued to the Company. Patent costs are amortized over their respective lives (15 - 20 years) and amortization was \$15,000 in 2002 and in 2001.

### IMPAIRMENT OF LONG-LIVED ASSETS

Long-lived assets and identifiable intangibles to be held and used are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount should be addressed. Impairment is measured by comparing the carrying value to the estimated undiscounted future cash flows expected to result from use of the assets and their eventual disposition.

### BASIC AND DILUTED EARNINGS (LOSS) PER COMMON SHARE

Basic earnings (loss) per common share are computed using the weighted average number of common shares outstanding during the period or issuable upon the required conversion of preferred stock. Diluted earnings per common share incorporates the incremental shares issuable upon the assumed exercise of stock options and warrants. Such incremental shares were anti dilutive for the periods presented.

### RESEARCH AND DEVELOPMENT

Research and development costs are expensed as incurred. Such costs include direct labor and materials as well as a reasonable allocation of indirect costs. However, no selling, general and administrative costs are included. Equipment which has alternative future uses is capitalized and charged to expense over its estimated useful life.

56

ESSEX CORPORATION  
NOTES TO FINANCIAL STATEMENTS  
FOR THE FISCAL YEARS ENDED DECEMBER 29, 2002 AND DECEMBER 30, 2001

### STATEMENTS OF CASH FLOWS

Supplemental disclosures of cash flow information are as follows:

	2002	2001
	-----	-----
A. Cash paid during the year for-		
Interest	\$ 27,000	\$ 16,600
Income taxes	\$ --	\$ --

B. In 2002 and 2001, there were new capital leases of \$62,000 and \$288,000, respectively.

### 2. ACCOUNTS RECEIVABLE

Accounts receivable consist of the following:  
U.S. Government

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

Amounts billed, including retainages	\$ 611,526
Commercial and other	4,100
	-----
	615,626
Contract reserves and allowances for doubtful accounts	(50,000)
	-----
	\$ 565,626

U.S. Government receivables arise from U.S. Government prime contracts and subcontracts. Retainages (which are not material) will be collected upon job completion or settlement of audits performed by cognizant U.S. Government audit agencies. Company cost records have been audited through 2000. In the year an audit is settled, the difference between audit adjustments and previously established reserves is reflected in income.

Contract reserves and allowances for doubtful accounts have been provided where less than full recovery under the contract is expected.

### 3. ACCOUNTS RECEIVABLE FINANCING

The Company has a working capital financing agreement with an accounts receivable factoring organization. Under such an agreement, the factoring organization may purchase certain of the Company's accounts receivable subject to full recourse against the Company in the case of nonpayment by the customers. The Company generally receives 85%-90% of the invoice amount at the time of purchase and the balance when the invoice is paid. The Company is charged an interest fee and other processing charges, payable at the time each invoice is paid. There were \$169,000 of funds advanced as of December 29, 2002.

### 4. INVENTORY

Inventory costs were all related to the Company's ImSyn(TM) optoelectronic processor. The Company has approximately \$300,000 of inventory which is fully reserved as the existing configuration of finished goods in inventory is being redesigned.

57

## ESSEX CORPORATION NOTES TO FINANCIAL STATEMENTS FOR THE FISCAL YEARS ENDED DECEMBER 29, 2002 AND DECEMBER 30, 2001

### 5. MAJOR CUSTOMER INFORMATION

The Company's largest customer contract is with the DoD Missile Defense Agency to design a next generation optoelectronic radar processor. Such new work in 2002 amounted to \$2,052,000 (46% of revenues). Another significant customer program was for work to an agency of the Department of Defense. The Company is continuing research work under this subcontract on the use of its optoelectronics technology and devices in certain customer systems and applications. Such work amounted to approximately \$1,002,000 (22%) of revenues in 2002 and \$1,030,000 (39%) of revenues in 2001.

### 6. COMMITMENTS AND CONTINGENCIES

#### LEASE OBLIGATIONS

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

The Company leases office space and certain equipment. As of December 29, 2002, the Company is committed to pay aggregate rentals under these leases as follows:

2003	\$	315,000
2004	\$	246,000
2005	\$	202,000

Rental expense charged to operations, including payments made under short-term leases, amounted to \$275,000 and \$261,000 in 2002 and 2001, respectively.

The Company's office facility is under a long-term lease which expires October 2005. The lease contains provisions to pay for proportionate increases in operating costs and property taxes.

### 7. CONVERTIBLE NOTE PAYABLE

On December 17, 2002, the Company entered into a Convertible Note Purchase Agreement with one of its Private Investors. The Company issued a \$500,000 unsecured promissory note due December 31, 2004. The note bears interest at 10%; such interest may be deferred until maturity. The outstanding principal balance is convertible into common stock at \$2.60 per share, the approximate market price of the Company's stock at the date of issuance of the note. If the note is converted, then no interest shall be paid.

### 8. RETIREMENT PLAN

The Company has a qualified defined contribution retirement plan, the Essex Corporation Retirement Plan and Trust, which includes a salary reduction 401(k) feature for its employees. The Plan calls for an employer matching contribution of up to 3% of eligible employee compensation under the salary reduction feature and allows for a discretionary contribution. Total authorized contributions under the matching contribution feature of the Plan were

58

ESSEX CORPORATION  
NOTES TO FINANCIAL STATEMENTS  
FOR THE FISCAL YEARS ENDED DECEMBER 29, 2002 AND DECEMBER 30, 2001

\$78,000 in 2002 and approximately \$64,000 in 2001. There were no discretionary contributions in these years.

In accordance with the retirement plan and trust, as amended, such authorized contributions and the resulting annual expense can be reduced by forfeitures by terminated employees of unvested amounts of prior years' contributions. Forfeitures of \$13,000 and \$2,000 were utilized to reduce annual expenses in 2002 and 2001, respectively.

### 9. INCOME TAXES

The components of the Company's net deferred tax asset account are as follows as of December 29, 2002:

Edgar Filing: ESSEX CORPORATION - Form 10KSB

NOL carryforward	\$	3,869,000
Tax credit carryforward		206,000
Inventory valuation reserve		107,000
Accrued employee benefit costs		40,000
Allowance for doubtful accounts		17,500
Other, net		18,000
Valuation Reserve		(4,257,500)
		-----
Net Deferred Tax Asset	\$	--
		=====

The Company has a regular net operating loss ("NOL") carryforward of \$11,054,000 and tax credit carryforwards of \$206,000 that are available, subject to certain limitations, to offset future book income and taxes payable. The NOL begins to expire in 2008 and the tax credit carryforwards expire through 2022.

The evaluation of the realizability of such deferred tax assets in future periods is made based upon a variety of factors for generating future taxable income, such as intent and ability to sell assets and historical and projected operating performance. At this time, the Company has established a valuation reserve for all of its deferred tax assets. Such tax assets are available to be recognized and benefit future periods.

The Company recorded no benefit or provision for income taxes in 2002 or 2001.

10. STOCK OPTION AND STOCK BONUS PLANS; OTHER STOCK OPTIONS

The Company has several stock option plans with similar terms and conditions. The plans reserve 1,754,318 shares of the Company's unissued shares for option and stock appreciation rights ("SAR") grants. The plans expire through 2012. Options, which may be tax qualified ("ISOs") and non-qualified ("NSOs"), are exercisable for a period of up to 10 years at prices at or above market price as established on the date of grant. Upon the exercise of a stock appreciation right, the recipient will receive payment in the form of stock, cash, or both, as determined by the Company, equal to the appreciation in value of the shares to which the rights

ESSEX CORPORATION  
 NOTES TO FINANCIAL STATEMENTS  
 FOR THE FISCAL YEARS ENDED DECEMBER 29, 2002 AND DECEMBER 30, 2001

were awarded. A total of 199,250 ISO or NSO options were granted under the plans in 2002. No SARs were granted under the plans in 2002 or are outstanding.

Stock Option Plans

Number of Shares	Price Per Share
-----	

Edgar Filing: ESSEX CORPORATION - Form 10KSB

Outstanding, 12/31/00	956,700	\$ 1.00	-	\$ 3.00
Granted	441,300	\$ 3.00	-	\$ 6.07
Exercised	(49,182)	\$ 1.00	-	\$ 3.00
Outstanding, 12/30/01	1,348,818	\$ 1.00	-	\$ 6.07
Granted	199,250	\$ 2.36	-	\$ 4.96
Exercised	(71,350)	\$ 1.00	-	\$ 3.00
Canceled	(14,500)	\$ 2.40	-	\$ 3.96
Outstanding, 12/29/02	1,462,218	\$ 1.00	-	\$ 6.07
Exercisable, 12/29/02	1,375,818	\$ 1.00	-	\$ 6.07

Under the plans, the weighted average price for options outstanding was \$3.41 and for options exercisable \$3.18. The weighted average life for options outstanding was 6.3 years and for options exercisable 6.2 years. The following table summarizes information about all plan stock options outstanding at December 29, 2002:

Range of Exercise Prices	Options Outstanding			Options Exer
	Shares #	Weighted-Average Remaining Contractual Life (Years)	Weighted-Average Exercise Price (\$)	Shares #
\$ 1.00 - \$ 1.69	342,168	5.8	1.17	342,168
\$ 2.04 - \$ 2.70	386,350	8.2	2.22	313,850
\$ 3.00 - \$ 3.96	575,900	5.0	3.73	575,900
\$ 4.73 - \$ 6.07	157,800	7.5	5.91	143,900
	----- 1,462,218 =====	6.3	2.94	----- 1,375,818 =====

The Company has a Restricted Stock Bonus Plan covering key employees and directors of the Company. The Plan can reserve up to 50,000 of the Company's unissued shares for awards. There were no shares awarded in 2002 or 2001. As of December 29, 2002, there were 4,050 shares available for award under the Plan.

In 1994, the Company issued an option for 125,000 shares of unregistered common stock under a lease settlement. The option is exercisable through December 31, 2004 at an exercise price (as adjusted) of \$1.29 per share. The option price is subject to adjustment under anti-dilution provisions of the option agreement. The optionholders have certain registration rights for these shares of common stock. In January 2002, the optionholders exercised options for 10,000 of these shares.



## Edgar Filing: ESSEX CORPORATION - Form 10KSB

In 2001, the Company issued non-qualified options for 85,000 shares directly to its President and 40,000 to its Chief Financial Officer/Treasurer. Also in 2001, 45,000 shares were issued to another employee of the Company. The exercise price was equal to the market price on the date of grant.

In October 1995, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards ("SFAS") No. 123, "Accounting for Stock-Based Compensation". SFAS No. 123 defines a "fair value based method" of accounting for an employee stock option or similar equity instrument. Under the fair value based method, compensation cost is measured at the grant date based on the value of the award and is recognized over the service period. The Company has historically accounted for employee stock options or similar equity instruments under the "intrinsic value method" as defined by APB Opinion No. 25, "Accounting for Stock Issued to Employees". Under the intrinsic value method, compensation cost is the excess, if any, of the quoted market price of the stock at grant date or other measurement date over the amount an employee must pay to acquire the stock.

SFAS No. 123 allows an entity to continue to use the intrinsic value method and management has elected to do so. However, entities electing to remain with the accounting in APB Opinion No. 25 must make pro forma disclosures of net income and earnings per share, as if the fair value based method of accounting had been applied. Because the SFAS No. 123 method of accounting has not been applied to options granted prior to January 1, 1995, the resulting pro forma compensation costs may not be representative of the cost to be expected in future years. Accordingly, net loss and loss per share would be as follows:

	December 29, 2002	December 30, 2001
Net loss, as reported	\$ (2,173,617)	\$ (4,319,190)
Add: Stock-based employee compensation expense included in reported net loss	209,325	-
Less: Total stock-based employee compensation expense determined under fair value based method for all awards	(897,452)	(1,224,970)
	\$ (3,611,069)	\$ (5,544,170)
Pro forma loss attributable to common stockholders	\$ (3,611,069)	\$ (5,544,170)
Loss per share:		
Basic-as reported	\$ (0.29)	\$ (0.60)
Basic-pro forma	\$ (0.49)	\$ (0.80)
Diluted-as reported	\$ (0.29)	\$ (0.60)
Diluted-pro forma	\$ (0.49)	\$ (0.80)

# Edgar Filing: ESSEX CORPORATION - Form 10KSB

ESSEX CORPORATION  
NOTES TO FINANCIAL STATEMENTS  
FOR THE FISCAL YEARS ENDED DECEMBER 29, 2002 AND DECEMBER 30, 2001

The fair value of each option is estimated on the date of grant using the Black-Scholes option pricing model with the following assumptions:

	2002	2001
	-----	-----
Dividend yield	0.00%	0.00%
Volatility	101.5%	84.85%
Weighted average risk free interest rate	4.32%	5.18%
Weighted average expected lives of grants	9.7 years	9.6 years

The weighted average grant date fair value of the options issued in 2002 and 2001 was approximately \$2.30 and \$3.81, respectively.

## 11. COMMON STOCK; WARRANTS; PREFERRED STOCK

The Company's Articles of Incorporation authorize 1 million shares of preferred stock, par value \$0.01 per share, the series and rights of which may be designated by the Board of Directors in accordance with applicable state and federal law. In September 2000, the Board designated 500,000 shares of such preferred stock as Series B. There were 312,500 shares of Series B issued in 2000 for \$1,250,000 and the remaining 187,500 issued in 2001 for \$750,000 to the Company's Private Investors. The 500,000 Series B shares were converted as required into 2,000,000 shares of common stock in September 2002. No Series A or Series B preferred shares are currently outstanding.

In connection with the issuance of the preferred stock, the Company also issued common stock warrants to the preferred stock holders. These warrants are for an additional 2 million shares of common stock. The warrants expire in September 2005 and can be exercised at a nominal price of \$2,000. The warrants become exercisable under certain terms and conditions, such as the market price of the common stock exceeding \$10 through \$20 per share for 5 consecutive days, or the occurrence of an additional private placement of \$10 million where the valuation of the Company exceeds \$50 million. The warrants would also become exercisable upon a sale of all or substantially all of the assets of the Company or a merger or acquisition of the Company. The Company has determined that the warrants had a nominal fair value at issuance due to the restrictive covenants. The Company has reserved 2 million shares of common stock in connection with the possible exercise of the related common stock warrants. As of December 29, 2002, these warrants were not exercisable.

In addition to the preferred stock transactions, the Company completed several private placement transactions of its common stock directly with its Private Investors or their affiliates. In 2001, the Company received \$2,250,000 and issued approximately 539,000 shares of common stock. In 2002, the Company received \$1,450,000 and issued approximately 528,000 shares of common stock. In January 2003, a prepaid warrant for \$50,000 was converted into approximately 16,000 shares of common stock.

In accordance with Emerging Issues Task Force Issue No. 98-5 "Accounting for Convertible Securities with Beneficial Conversion Features or

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

Contingently Adjustable Conversion

62

ESSEX CORPORATION  
 NOTES TO FINANCIAL STATEMENTS  
 FOR THE FISCAL YEARS ENDED DECEMBER 29, 2002 AND DECEMBER 30, 2001

Ratios", the Company has imputed and recorded in 2000 and 2001 a deemed dividend of \$2,000,000 on its Series B Preferred Stock equal to the difference between the estimated current market price at original date of issuance and the conversion price (the "beneficial conversion feature"). Such imputed dividends have no impact on net loss from operations or cash flows but have to be considered when calculating loss per share attributable to common stockholders.

12. SUBSEQUENT EVENT

As of March 1, 2003, the Company acquired 100% of the common stock of Sensys Development Laboratories, Inc. ("SDL"). The assigned value of the consideration and related expenses is approximately \$4,405,000. Under the terms of the agreement, the Company will pay \$309,000 in cash and issue approximately 683,000 shares of common stock. The agreement further provides that an additional number of shares up to 422,000 may be released from escrow on the first anniversary of closing based upon certain factors. The Company also issued approximately 195,000 non-qualified fully vested options for its common stock at below market exercise prices in exchange for SDL fully vested outstanding options. The value of the maximum stock consideration was based upon the 20 day weighted average market price of the Company's common stock in December 2002, the approximate date the deal terms were established.

SDL provides both system and software engineering technical support to U.S. Government customers and prime contractors supporting government programs. SDL has an established workforce with specialized experience and credentials. For its most recent fiscal year ended September 30, 2002, SDL had revenues of over \$3 million and has been operating at an annualized level of over \$4 million for fiscal 2003.

The following table summarizes the estimated fair values of the asset acquired and liabilities assumed at the date of acquisition. The Company is in the process of valuing certain intangible assets and does not expect to complete this evaluation until April 2003.

Current assets	\$	1,292,000
Equipment and other		33,000
Goodwill and other intangibles		3,600,000
		-----
Total assets acquired		4,925,000
Current liabilities		(520,000)
		-----
Net assets acquired	\$	4,405,000
		=====

## Edgar Filing: ESSEX CORPORATION - Form 10KSB

Until the valuation of the intangible assets is completed, the above purchase price allocation is subject to change. A preliminary review indicates that a significant portion of intangibles will be goodwill and not subject to amortization.

63

### CONSENT OF INDEPENDENT AUDITORS

We hereby consent to the incorporation of our report dated February 21, 2003, included in this Form 10-KSB, into Essex Corporation's previously filed Registration Statements on Form S-8, File No. 33-47900, File No.33-336770, File No. 333-57122 and File No. 333-65466; and on Form S-2, File No. 333-61200.

Stegman & Company

Baltimore, Maryland  
March 24, 2003

64