ESSEX CORPORATION
Form 10KSB
March 28, 2002

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 30, 2001 Commission File No. 0-10772

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

Virginia	54-0846569
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer 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. $2,641,776

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. $19,114,904 as of March 6, 2002

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 15, 2002
Common Stock, no par value per share	5,290,868

DOCUMENTS INCORPORATED BY REFERENCE
None

A list of the Exhibits and Financial Statement Schedules in this Report on Form 10-KSB appears on page 52.

Transitional Small Business Disclosure Format YES --- NO X ---

Table of Contents
FORM 10-KSB
Essex Corporation

PART I

PART I

INTRODUCTORY STATEMENT

The information contained in this report pertains to the registrant, Essex Corporation. References to the "Company", "Essex" or "we", "our" and "us" refers to Essex Corporation.

FORWARD-LOOKING STATEMENTS

Some of the statements contained in this annual report discuss future 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. The Company was incorporated in Virginia in 1969 and went public in 1981. The Company now has a team of over 25 engineers, most of whom have worked together for more than a decade. They have historically provided optoelectronic and signal processing expertise to highly classified government customers under advanced and next generation research and development (R&D) contracts.

Since 1989, 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. In much the same way as an array processor, an optoelectronic processor is integrated with or embedded in other processors to render daunting processing problems feasible. ImSyn(TM) was the Company's first commercially available processor that computes at an equivalent all-digital rate of 1.6 teraflops at 120 dB dynamic range.

Capitalizing on its expertise and success in developing and building optoelectronic systems for national security applications, Essex has developed four core areas of technical expertise and intellectual property. The four core areas are: HYPERFINE WAVELENGTH DIVISION MULTIPLEXING (WDM) technology for telecommunications; Optical Processor Enhanced Receiver Architecture

(OPERA(TM)) technology for wireless and Digital Subscriber Line (DSL) applications; Advanced Optical Processor (AOP) technology for ballistic missile defense; and 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. All of these areas include significant intellectual property that is patented or patent pending.

Essex currently does not have sufficient resources to bring its telecommunications and optoelectronics processing devices to market. Accordingly

Essex will likely have to partner with or enter into licensing arrangements with major industry participants in order to successfully introduce its technology and products. In addition, several optical telecommunications and fiber optic companies, both established and emerging, are currently developing products that may compete in the specialty areas that Essex's technology is designed to address. Many of these companies are larger and more established than Essex and have existing customer bases and significantly greater access to capital resources than Essex.

RECENT DEVELOPMENTS

In mid 2000, the Company began a transformation from a government technology R&D contractor to a developer of products for the telecommunications industry. Since that time, Essex has utilized approximately $5 million of private equity capital 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 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 that the core HYPERFINE WDM technology provides:

All passive optical components;

Simple and small packaging;

Excellent channel isolation;

High density--50 MHz to 100 GHz spacing;

Superior response and flat filter shapes;

Passband shapes that can be tailored for each application;

Low insertion loss;

Low temperature sensitivity;

Fixed or tunable designs; and

Standard manufacturing processes.

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 that entail rigid bandwidth provisioning, significant service delays, truck rolls for required upgrades and extremely high life cycle costs to next-generation systems that entail 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 OF HYPERFINE WDM TECHNOLOGY

Within 6 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. Currently, the devices 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.

FIELD TRIALS FOR PROTOTYPE DEVICES

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 is expecting to continue field trials in the first half of 2002, enter into one or more alpha (early adopter test) programs to complete first production devices and generate initial revenues with strategic partners beginning in mid 2002. Limited production for fully operable HYPERFINE WDM devices is expected to commence in early 2003. 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 also.

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.

MARKETING ALLIANCE WITH LASER COMPANY

Essex has established a joint marketing arrangement with FiberSpace, Inc., a Woodland Hills, California company that has developed a laser locker that complements HYPERFINE WDM. The use of FiberSpace's Optical Phase Locked Loop (OPLL) is expected to accelerate the deployment of Essex products.

OTHER TECHNOLOGY DEVELOPMENT

With HYPERFINE WDM progressing into field trials, Essex has turned its attention to completing research and development work on the other HYPERFINE WDM products. The Company has also begun the design work necessary for the commercialization of the Optical Processor Enhanced Receiver Architecture (OPERA(TM)) technology for wireless and DSL applications. The Company has begun discussions with several wireless telecommunications companies to explore the joint development of OPERA(TM), thus leveraging Essex's optoelectronic experience with the wireless company's extensive wireless market and technical experience. Essex also believes that OPERA(TM) has the capacity to provide enhanced Digital Subscriber Line (DSL) technology solutions to semiconductor and equipment companies that make products to enable simultaneous high-speed data and regular voice transmissions over copper telephone lines by using optical technology to reduce signal interference and extend the reach of DSL technology. The Company is seeking to partner with one or more leading suppliers of integrated circuits to develop chipsets that incorporate DSL technology to develop and deploy OPERA(TM) technology for this application.

NATIONAL SECURITY RELATED INITIATIVES

Along with its technology development progress in 2001, the Company continues to focus on "smart revenue" and has been successful in obtaining new R&D government contracts that advance its core technology areas. Moreover, in the wake of the tragic events of September 2001, Essex management is positioning the Company to initiate new development efforts under contract to government agencies for the adaptation of the HYPERFINE WDM and OPERA(TM) technologies for national security programs. The Company intends to seek new business opportunities to service highly classified customers under government contracts which help to expand the Company's intellectual property and advance its core technologies, thus enabling it to generate additional revenues as a developer of optical systems for defense as well as commercial application. To advance such new business initiatives, Essex announced in early 2002 that retired U.S. Army Lieutenant General Claudia J. Kennedy and retired U.S. Air Force Lieutenant General Kenneth A. Minihan joined the newly formed Essex National Programs Advisory Board. This board provides strategic guidance concerning the application of Essex optical signal processing technology for high priority national security applications. Essex management also believes that market fragmentation in the area of government contract R&D for national security related technology and associated software systems present opportunities for consolidation by companies, such as Essex, which have long-term experience in these areas. Essex plans to draw

on its legacy of work with government agencies in the areas of fiber optic communications, signal processing and CDMA telecommunications systems to pursue strategic affiliations or acquisitions that will provide us with additional key technologies, complement technology development activities, enhance our related software development capabilities, increase our "smart revenue" generation, increase our sales channels to national security related government programs and add to our overall level of expertise.

INDUSTRY BACKGROUND

Over the past decade, the volume of high-speed data traffic transmitted via electronic media has expanded rapidly as a result of the introduction and proliferation of bandwidth-intensive applications. To meet the demand for high-speed data services created by these new network applications,

telecommunications service providers have already invested billions of dollars in new infrastructure to upgrade the voice-centric public network infrastructure to enable more efficient transmission of data traffic, and to deploy mobile telecommunications systems that can transmit high-speed data traffic and improve quality of service over more primitive first generation telephone cellular systems.

Although 2001 witnessed a significant slowdown in new investment in infrastructure within the telecommunications industry, it is expected that businesses and residential consumers will continue to demand improved high-speed network access to all available telecommunications networks, whether they are optical, traditional telephone wirelines or wireless systems. High-speed Internet access, scarcely available a few years ago, and wireless voice transmission remain the primary applications driving customer demand today. Introduction of new products and services with ever-broadening applications for fixed-line networks and the transition from voice to data traffic as the mainstay of mobile telecommunications systems will drive further growth. Thus, second-line voice and data services, video download, video conferencing, telecommuting, off-site data back-up storage systems, and mobile computing devices with internet and data transmission capabilities will continue to fuel demand for broadband services of all types in the future. Essex has initially targeted applications of its optical processing and signal processing technologies on the telecommunications industry because management believes that as a result of the forces driving the trends noted above, the industry continues to present exceptional long-term growth opportunities.

Essex management believes that the legacy technologies used to build existing telecommunications networks do not provide cost-effective, fail-safe and scalable platforms to support the massive demands for high-speed, high-bandwidth applications that will drive future network growth. The Company believes that service providers will require new solutions to relieve local and metro network congestion, improve service profitability and to create new services to support new data applications. New technologies that are adopted in the future will be those that enable telecommunications service providers to easily scale their existing networks, reduce capital and operational costs to achieve greater service profitability, reduce the complexity of provisioning high-speed services and to introduce new high-speed data services. Further, Essex believes that many capital-constrained telecommunications service providers are looking to identify new technologies that are designed to protect service providers' existing investment in fiber optic networks and transmission equipment, rather than requiring the construction of all new fiber optic networks or investment in new transmission infrastructure. Essex believes that simple, passive, inexpensive technologies will provide the basic infrastructure for all-optical networks from the long-haul backbone to the metropolitan or edge

segment of the network. We expect deployment of cheaper and improved access technologies to fuel the next major wave of growth in bandwidth demand, opening up broadband applications to other potential network users, such as residential units and small businesses, that today find the costs or availability of access technologies that leverage the use of fiber optic cable or dedicated T-1 service prohibitive. In short, Essex believes that the driving force for the new products sought by commercial telecommunications providers in coming years will be a focus on reliability, efficiency, scalability and cost.

Essex is developing and testing products that the Company believes have the potential to offer significant cost advantages, enable higher system capabilities and increase quality of service and revenue generation potential for next-generation optical, wireless and digital wireline communications

systems. In each of these areas, the Company operates on the premise that fundamental barriers to the deployment of more cost-effective and higher capability exist due to the limitations of legacy technology.

OPTICAL NETWORKS

Traditional SONET/SDH-based network architecture was originally designed to transport voice traffic rather than the data traffic that is now fueling network growth. Telecommunications service providers are constrained in the amount of bandwidth they can allocate to their optical network resources because, in typical ring-based architecture, the SONET/SDH equipment allocates half of the bandwidth available on the fiber for back up in case of a network failure. Once fully provisioned, the SONET/SDH ring can only be reconfigured to support the delivery of additional bandwidth and services via complex and costly procedures to upgrade the ring. In addition, once bandwidth is made available it cannot be easily redeployed as customer demands change. In short, the ability to expand the capacity of a SONET/SDH network to supply more bandwidth, or the flexibility to assign bandwidth on a demand basis as is the case with electricity supply, are severely constrained by the fact that any such reprovisioning requires on-site technical changes at each network transit point and significant up-front capital investment by the telecommunications service providers.

Future optical networks will need to be capable of quickly delivering and redeploying large amounts of bandwidth cost-effectively, when and where it is needed and for just as long as it is needed. Service providers will demand equipment and devices that enable them to provide "just-in-time" investment and a service delivery model allowing them to introduce and expand services when and where needed in response to demand. This will require an all-optical network architecture that is scalable, flexible and cost-effective and that is capable of supporting the surges in growth in high-speed data communications services.

Telecommunications service providers, even in the midst of a downturn in new investment, are scrambling to adjust to a rapidly changing competitive and technology landscape and are seeking to bring all-optical networking from long-haul DWDM networks to metro and access networks. Growth in the metro and access networks is high and is driven by several factors:

More Bandwidth Demand - Metro networks are swamped by data traffic as carriers deploy broadband access technologies.

Bandwidth Plus Services - Fiber optic networks are rapidly expanding deeper into the metro and access areas and are accessible to more and more buildings.

The Emergence of Gigabit Ethernet - Gigabit Ethernet offers seamless interconnection with customer LAN's, disruptive bandwidth pricing and bandwidth efficiency.

Low Cost Needs - Introduction of low cost metro optical components such as mux/demultiplexers, optical add/drop multiplexers, transceivers and amplifiers.

WIRELESS COMMUNICATIONS

System capabilities in wireless communications are limited today by the capacity constraints of existing base station and mobile unit configurations. While the solution over the past decade has been to build more towers and base station receivers to handle more traffic, the sheer volume of users, coupled

with the introduction of data transmission for mobile computing and hand-held usage, are straining the capacity on most urban mobile telecommunications networks. The Company believes that a fundamental problem lies in the design of most transmitter-receiver systems utilized in the wireless industry today.

CDMA receivers are built around correlators which correlate the received signal (containing the desired signal plus all of its environment) with the known code, called the spreading code of the desired signal. Modern cellular CDMA receivers do this with digital correlators and correlate not only the direct-path signal, but also look for multipath signals (i.e., versions of the desired signal delayed by bounces off of objects such as buildings). These "RAKE" receivers typically have five correlation "fingers" (like a "rake") with one finger tracking the direct path signal, three fingers tracking the strongest 3 multipath signals, and one scanning for other multipath signals. Each of these fingers requires a correlation with the desired signal's spreading code, but at a different time offset.

There are several shortcomings of the current architecture. First, there are often more than three significant multipaths present, thus some energy which could be used to enhanced signal quality will, in fact, appear as interference to the desired signal. Second, multipath is very dynamic and while tracking of the three principal multipath channels is performed adequately, the sequential search of the fifth RAKE finger for new multipath can miss occurrences which come and go before the finger scans over them. Again, energy which could increase signal quality is wasted. Third, all other multiple access users of the cell (and adjacent cells) are treated as noise in the receiver, but are, in fact, just as receivable as the desired signal. In a cellular telephone system when a large number of callers are permitted on the system, these multiple users generate signals that are considered "noise" to each other. (That is to say, on a cell phone the users compete with each other for the system's power and capacity.) To maximize the number of simultaneous users, these systems must be able to identify and remove this "noise" or interference. When many simultaneous users increase the noise level so much that the systems cannot identify and eliminate the noise, then calls are dropped and the system becomes "unavailable" and communications become faulted.

DIGITAL SUBSCRIBER LINES

During recent years, telephone companies responded to large demands for bandwidth by focusing their investments on increasing the data transmission speed and capacity of the core infrastructure, or "backbone", that links their central office locations. Improving access speeds and capacity along the "last mile" or the "local loop" that connects their central office locations with homes and businesses has largely not been a focus of significant infrastructure investment except in the major and affluent metropolitan areas. Many residential and small business users

must still rely on conventional voiceband modems for their Internet access and communication needs. Even optimized voiceband modems transmit data at speeds that are still too slow for some existing and many anticipated data applications, and these systems are further limited by their either/or nature because they cannot support simultaneous voice and data services. In recent years, new technological advances in semiconductor integration and digital signal processing have led to the development of a broadband access technology, known as Digital Subscriber Line or DSL, which can transmit data over copper telephone lines significantly faster than voiceband modems by using frequencies higher than those used for voice and voiceband modems. DSL delivers "always on" availability, eliminating the dial-up process associated with voiceband modems.

DSL is a point-to-point technology that connects the end user to a telecommunications service provider's central office or to an intermediate hub. DSL equipment is deployed at each end of the copper wire and the transmission speed depends on the length and condition of the existing wire.

DSL technology is inherently limited because of distance and noise. New technology that could extend DSL signals even short additional distances could lead to a significant increase in revenue for providers.

THE ESSEX TECHNOLOGY SOLUTIONS UNDER DEVELOPMENT

1) An all-optical, all-passive technique, HYPERFINE WDM FIBER OPTIC COMMUNICATIONS TECHNOLOGY, has shown in laboratory tests and prototype demonstrations to significantly increase the number of channels and their combined bandwidth used for DWDM.

2) An optically enhanced digital signal processing technology, OPTICAL PROCESSOR ENHANCED RECEIVER ARCHITECTURE (OPERATM), has demonstrated in laboratory modeling a dramatic increase in the quality of service and carrying capacity for CDMA wireless telecommunications systems. The OPERA(TM) technology has the potential to revolutionize current and future 2.5G and 3G CDMA systems, when deployed, by eliminating the "near-far" interference problem and allowing significantly more channels (users) per base station. Essex is in continuing discussions with wireless industry representatives regarding development of initial prototypes. Further development and testing of OPERA(TM) has been temporarily delayed until funding is identified and obtained to finance such activity.

3) A high-speed optoelectronic processor, IMAGE SYNTHESIS (IMSYNTM), enabling extraordinarily fast processing of data for complex visual image systems including radar imaging, magnetic resonance imaging (MRI), microscopy and ultrawideband signal processing. The second generation ImSyn(TM) optoelectronic processor can accelerate computing speed for processing of large volumes of data by factors of up to one hundred times over comparable digital-only processing. Partial development of the second generation of ImSyn(TM) is taking place under a government contract for the development of advanced synthetic aperture radar techniques. We are currently seeking additional funding to further the development and testing of second generation ImSyn(TM) processors in 2002.

HYPERFINE WDM TECHNOLOGY

Deriving originally from the Company's legacy business in optical signal processing engineering, Essex has invented and is currently developing a passive and low-cost optical technology called HYPERFINE WDM that accommodates the differing network types by passively subchannelizing wideband channels into useable narrowband channels. Channel resolutions range from the ultra-narrow 50 MHz to coarse 100 GHz. For example, in the long-haul network with channel spacing of 6.25GHz, HYPERFINE WDM can pack 16 OC-48 channels into one 100 GHz "Virtual OC-768" channel while keeping power density levels low and thereby minimizing non-linear effects such as chromatic dispersion and polarization dispersion. In the metro and access markets, HYPERFINE WDM accommodates differing network types by passively subchannelizing wideband channels into useable narrowband channels, e.g., OC-192/48/12/3, Fast/Gigabit Ethernet, Fibre Channel, ESCON or any digital or analog channel bandwidth required for the

application.

At narrower bandwidths, alternative architectures can be used that do not require expensive intermediate switching and routing technology layers, such as SONET and ATM. Bandwidth can be allocated to meet surges in demand and flexible network configurations can be designed to accommodate dynamic traffic patterns and multi-use channel allocation for different types of broadband media. Individual wavelengths can be dedicated to specific users and protocols, something that is impractical today. For long-haul DWDM networks, HYPERFINE WDM can be used to compensate for the negative effects of dispersion because narrowband channels are less sensitive to dispersion. Use of this passive, intrinsically low cost optical technology could make possible a new generation of less expensive optical and digital networking devices, even bringing optical channels to the desktop.

HYPERFINE WDM technology is intrinsically lower in cost than existing technologies (array wave guides (AWG's), thin films, fiber bragg gratings). HYPERFINE WDM provides a low cost means to not only increase bandwidth but also to allow for massive connectivity such that each user can have its own wavelength and have true bandwidth on demand. The Company believes that the HYPERFINE WDM technology provides the most efficient method of provisioning many narrowband channels in optical networks.

ADVANTAGES OF HYPERFINE WDM TECHNOLOGY. The key characteristics of the HYPERFINE WDM technology are: (1) high resolution, (2) high efficiency, (3) massive parallelism, (4) passivity, (5) simplicity, and (6) intrinsically low cost. These key characteristics join to meet the functional requirements that long-haul, metro and access network providers are searching for in such new technologies.

OPTICAL TRANSPARENCY, MULTI-PROTOCOL, MULTI-SERVICE USING A SINGLE INFRASTRUCTURE

Currently, implementing dedicated wavelengths per user is not practical. HYPERFINE WDM promises to increase the number of independent optical channel carriers that can be used. Instead of 40 or 80 channels there can now be 4,000 to 40,000 channels (wavelengths), allowing each user to have an independent wavelength. A pair of HYPERFINE WDM devices (a coarse channelizer followed by a fine channelizer) can channelize the entire bandwidth of a fiber to high resolution (1 GHz or less). Access providers will have the capability to integrate with wideband transmissions. The promise of optical transparency is fulfilled with the capability to multiplex different formats with less complexity and cost.

LOW COST

HYPERFINE WDM can subchannelize from 50 MHz to 200 GHz; however, the target bandwidth ranges are OC-12 (622 Mbps), Gigabit Ethernet (1.22 Gbps) and OC-48 (2.5 Gbps). These bandwidths permit lower cost signal demodulation terminals using low bandwidth electronics, optical detectors and modulators. Each receiver operates at CMOS logic rates, greatly reducing cost. HYPERFINE WDM should allow access providers to bring optical bandwidth to end-users. HYPERFINE WDM also offers a significant improvement in the data capacity of a single fiber by more efficient use of the optical bandwidth due to superior passband filter shape. This permits very close channel spacing without interference.

FLEXIBLE DEMAND-BASED PROVISIONING

Many parallel channels permits the network management system to provide "bandwidth on demand" by allocating many hyperfine channels to users after seeing spikes in demand using network load management tools.

RELIABILITY

HYPERFINE WDM is passive technology that does not rely upon electronics or moving components for operation. Thus, each HYPERFINE WDM device will have a relatively long-life and be multi-functional. With single channel data bandwidths within the capabilities of silicon technology, the complexity and costs of the drive electronics will be exceedingly low. The burden is then shifted to the complexity of maintaining laser sources within the line width and stability ranges necessary to stay adequately within the narrow channel width. Essex believes that continuing advances in laser quality and stability have made possible inexpensive solutions to this issue. One potential solution being tested is to use tunable lasers with a hyperfine-based spectrum analyzer feedback loop to keep the laser properly tuned. Another is to use a single stable laser modulated with a comb-generator waveform to produce all of the laser lines needed in the fiber network. Each user would then be provided an unmodulated carrier wavelength which can be modulated with data.

SIMPLICITY AND ROBUSTNESS

HYPERFINE WDM technology is simple and robust. Package sizing for a channelizer is in the 35 cubic inches range, about the size of a modern PC hard drive unit. Since HYPERFINE WDM channelizers are passive non-interferometric devices, thermal stability can be rather simply obtained by a combination of the use of minimal thermal coefficient of expansion materials combined with optical compensation for residual expansion.

HYPERFINE WDM FAMILY OF DEVICES. The four main markets identified by Essex for its HYPERFINE WDM technology are the long haul, metro, access and test equipment markets. The HYPERFINE WDM unprecedented channel spacing enables low cost applications in each of these markets. The HYPERFINE WDM family of devices under development that support the various markets are the following:

Multiplexer/Demultiplexer - Channel spacing can range from conventional DWDM widths of 100 or 200 GHz down to much narrower bandwidths as fine as 50 MHz. Used in conjunction with traditional DWDM devices, HYPERFINE WDM can be a post-channelizer or pre-channelizer (used as a multi-port interleaver).

Optical Add/Drop Multiplexer (OADM) - HYPERFINE WDM can be designed as a passive fixed configuration (single or multi-channel) add/drop multiplexer. When integrated with MEMS or liquid crystal switching technology, HYPERFINE WDM can be a dynamically tunable OADM.

Wavelength Locker/Monitor - A single channel HYPERFINE WDM coupled with a relatively low cost laser can provide narrowband outputs to maintain laser frequency stability and assure reliable transmissions. This device can also accurately and dynamically monitor laser wavelength performance.

Optical Spectrum Analyzer - The HYPERFINE WDM high-resolution characteristics make it an excellent spectrum analyzer for use in

spectrum analyzers providing up to 0.4 picometer resolution.

13

"WAVELENGTH PER USER" CAPABILITIES OF HYPERFINE WDM TECHNOLOGY. In the metro network, a hyperfine OADM integrated with MEMS is a simple and low cost solution for real time provisioning that offers N by X redundancy and bandwidth on demand. Similarly, in the access network, HYPERFINE WDM narrowband channelizers will allow access providers to dedicate hundreds or thousands of wavelengths from a central office to the customer's premises. This "Wavelength Per User" architecture is protocol neutral, and simplifies network management and provisioning. Essex's 16-channel OC-48 (2.5 Gbps) demultiplexer with channel spacing of 6.25 GHz can be used with traditional DWDM devices to serve as a pre- or post- channelizer.

As a pre-channelizer, when used in front of a traditional DWDM with 100 GHz spacing, HYPERFINE WDM is a multi-port interleaving technology yielding as many as 640 2.5 Gbps channels within the C band. As a post-channelizer, when used after traditional DWDM, HYPERFINE WDM can subchannelize a single 100 GHz channel into multiple 2.5Gbps data streams.

Using HYPERFINE WDM in the metro and access networks is presented as follows:

(PICTURE)

14

"VIRTUAL OC-768" FOR THE LONG-HAUL MARKET. In the long-haul network, HYPERFINE WDM'S multiple narrowband channels instead of a single OC-768 40 Gbps channel keeps power density levels low which minimizes non-linear effects such as chromatic and polarization dispersion. Essex's 16 channel demultiplexer with channel spacing of 6.25 GHz can pack 16 OC-48 channels into one 100 GHz "Virtual OC-768" channel. A schematic presentation of Virtual OC-768 is as follows:

(PICTURE)

HYPERFINE WDM IN TEST EQUIPMENT. As the access, metro and long-haul companies are striving for more narrowband (fine) channels, one item becomes apparent--the need for new test equipment for the new components and circuits. The HYPERFINE WDM technology and products under development fill this need in three main areas. First, a HyperLocker is a wavelength locking technology for existing and future tunable lasers. By integrating a single or multi-channel HYPERFINE WDM device into a laser cavity, the laser will be locked to a specific wavelength, with precision down to 50MHz. Second, in order to analyze the spectrum of the narrowband channels, a HYPERFINE WDM device with a 50Mhz channel spacing will enable a resolution of .4 Pico meters. Third, a HyperMonitor using a HYPERFINE WDM demultiplexer will accurately and dynamically monitor laser wavelength performance.

In management's opinion, the HYPERFINE WDM based test equipment under development offers significant advantages over traditional test equipment, such as fine resolution, high reliability due to very reduced cross talk risk, allows

the use of low cost lasers and filters and enables narrowband technologies.

OPTICAL PROCESSOR ENHANCED RECEIVER ARCHITECTURE (OPERA(TM))

OPERA(TM) is an interference cancellation technology for use in multiple access communication systems that have many simultaneous users (such as a CDMA spread spectrum or a DSL system). In such systems, interference and noise created by multiple users are the limiting factors to reliable and clear communications. OPERA(TM) provides a means by which to identify and eliminate all the noise so a particular user device "thinks" it is the only user on the system.

OPERA(TM) is based on an optical correlator which is a signal correlator that uses optical techniques to compute the correlation combined with multi-user detection algorithms. Thus, if

the receiver were to correlate on all of the spreading codes in its environment, it could receive all of the signals and use that knowledge to improve the reception of the desired signal.

The OPERA(TM) correlator in laboratory modeling performs signal correlations using optical techniques that enable the system to productively use all the received signals. While digital processing primitives are add, subtract, multiply and divide for performing signal processing functions, optical processor primitives are Fourier transforms and multiplies which encompass correlation functions. Thus, what is difficult digitally is easy optically, and vice versa. So, while implementing a digital five-finger one channel RAKE receiver is challenging in cellular applications, an optical 100 finger by 100-channel correlator is not.

POTENTIAL ADVANTAGES OF OPERA(TM) CORRELATOR. The OPERA(TM) correlator under development shows promise to overcome the three key deficiencies that management believes continue to reduce the quality of service and capacity of existing cellular and wireless systems. First, instead of sensing only three multipaths, the OPERA(TM) correlator can be configured to sense 100 to 1000 multipaths. This is particularly important because as cellular bandwidths increase, the number of significant multipaths increases proportionally. Second, with so many "fingers", the OPERA(TM) correlator does not need to search for multipaths since it has instantaneous access to all possible multipath delays. Third, instead of sensing only the multipath from the desired signal, the OPERA(TM) correlator can sense the multipaths from all signals in the environment and thus provide the data necessary to remove them as interferers using multiple user detection (MUD) techniques.

In laboratory modeling and analysis, the OPERA(TM) correlator not only has been shown to perform these functions, but it also achieves them within a small size, low weight and low power module. In management's opinion, these characteristics not only give OPERA(TM) a clear advantage over conventional digital processing in base-station applications, but also make it a viable candidate for handset applications where lots of processing power can be advantageously applied in a small, low-power device.

KEY POTENTIAL MARKETS FOR OPERA(TM) TECHNOLOGY. The ability of the OPERA(TM) technology to eliminate noise and cancel interference is applicable to technologies where noise and interference are limiting factors. The two main markets identified by Essex for application of its OPERA(TM) technology are the wireless CDMA spread spectrum enhancement market and the Digital Subscriber Line (DSL) enhancement markets. The OPERA(TM) family of devices under development

that will support each market are as follows:

OPERA(TM) Correlator - This is an optoelectronic processor for CDMA environments that applies to the base stations and handset receivers. In laboratory modeling, the OPERA(TM) Correlator increases cell capacity by 300 to 400%, eliminates noise, cancels interference and performs 911 geolocation.

OPERA(TM) DSL Enhancement - The OPERA(TM) optoelectronic processor would be incorporated into an ASIC chip that would sit either in the splitter or the modem at the customer premise and increase the distance of the DSL. Currently, because of the noise factor, DSL is limited to about 12,000 feet from the Central Office. The goal for an OPERA(TM) DSL Enhancement is to double the distance.

ADVANCED OPTICAL PROCESSOR

The Advanced Optical Processor (AOP) being developed by Essex under contract for the United States Missile Defense Agency 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 also other items that are sent into the threat environment to make it harder to identify and "kill" the missile target. 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.

Essex is able to provide superior performance to the Missile Defense Agency in its AOP using its core optical technologies and experience. Management continues to support and encourage this "smart revenue"; that is, revenue on government contracts that advances Essex's core optical technologies.

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. Such equivalent processing from an all-digital system would need to operate at 1.6 teraflops per second which cannot be done inexpensively in the digital domain. Essex has, however, produced a few small, robust, lower cost optical processors capable of such high speeds.

The main markets identified by Essex for its VLI technology are the following:

Synthetic Aperture Radar (SAR) - Under certain government contracts, Essex provides SAR image processing to its government customers using its optoelectronic (ImSyn(TM)) processors;

Ground Penetrating Radar (GPR) - Essex has tested its VLI technology to process ground penetrating radar data to produce images of items that are located beneath the ground. Such items may include, mines, utility lines and pipes, telecommunication fibers and natural resources;

Homeland Security Image Processing - VLI technology may be used to scan baggage, in real time, and produce images; and

Biomedical imaging - VLI technology has been tested to perform real time MRI processing.

TELECOMMUNICATIONS SYSTEMS ENGINEERING

The Company has provided high-end systems engineering support to government sponsors and prime contractors in the definition and development of aerospace communications and reconnaissance systems. The Company has significant experience in modeling, simulation and analysis of commercial and defense satellite systems (LEO, MEO, HEO and GEO) that include

Iridium(R), Teledesic(TM), MILSTAR, TDRSS, Intelsat and others. The Company has developed software for mission planning, payload data processing, geolocation, payload test and evaluation, and on-board channel management and data routing.

System modeling and simulation supports the entire system life cycle, including system definition, performance analysis, space segment definition and ground segment design. The Company has developed custom models for the design and analysis of mobile voice and wideband data systems, and has developed algorithms for communications system operations.

The Company's satellite system models consist of several integrated software modules hosted on a computer network. The satellite orbital propagation and geometry software module models the coverage and performance aspects of multiple vehicle constellations, including single or statistical events, motion and pointing effects and comparisons of constellations. They deal with passive geolocation, time difference of arrival, frequency difference of arrival, time of arrival, frequency of arrival, angle of arrival and numerous error sources, and provide automated link budget computation. The geographical software module plots parameter versus parameter outputs from other modules. The mapping module plots data and contours from other computational modules on map backgrounds. It provides selectable projections, user-specified levels of detail and various antenna patterns.

STRATEGY AND BUSINESS MODEL

Essex has developed proprietary photonic-related technologies and solutions to overcome critical technical challenges that inhibit the capacity and quality of traditional telecommunications systems. The Company's goal is to become a leader in low-cost, optical telecommunications products that exploit its HYPERFINE WDM and OPERA(TM) technologies and other intellectual property derived from its optoelectronic expertise. The Essex business strategy is to exploit the commercial potential of its intellectual property by embedding these technologies into an array of components, devices and subsystems for sale to major telecommunications companies. While the markets for new telecommunication systems are depressed in early 2002, the Company believes that its products under development have the potential to offer significant cost advantages, enable higher system capabilities and increase quality of service and revenue generation potential for current and next-generation optical, wireless and digital wireline communications networks. As such, Essex management believes that the Company must be in a position by late 2002 to meet potential demand for its products for commercial telecommunications providers whose focus will be on reliability, efficiency and cost.

INDEPENDENT TECHNOLOGY DEVELOPER

The Essex strategy is to serve as an independent technology developer and provider in key telecommunications markets as these markets require cheaper, more efficient and less capital intensive solutions in coming years. Telecommunications providers increasingly want to rely on multiple independent sources of technology to provide flexible technology solutions while leveraging their own and their customers' strengths without having to make significant expenditures and to influence the establishment of industry technology standards where appropriate.

Only a limited number of technology companies currently supply markets addressed by the Company's OPERA(TM) technology, and most of them are affiliated with semiconductor or

equipment manufacturers. Essex believes that this presents a significant opportunity for independent providers that are able to supply technology to chipset manufacturers for mobile telecommunications and DSL equipment markets. The Company believes that as the markets for broadband access products and services grows, semiconductor manufacturers and other market participants will increasingly seek reliable independent sources of new technology.

PROTECT AND EXPAND CORE INTELLECTUAL PROPERTY

Essex is building its commercial business on the foundation of its legacy of lengthy experience and intellectual property in the fields of optoelectronic and signal processing. To realize and protect the economic value of its technical accomplishments in these fields, the Company has concentrated recently on expanding its portfolio of core hardware devices, mathematical algorithms and executable software code protected by patents and trade secrets. Essex intends to exploit and create value from this portfolio by designing and building a family of hardware products and supporting it with design services.

FIELD TRIALS OF OPTICAL NETWORKING PRODUCTS

Essex's 6.25 GHz prototype optical product has been taken into field trials by several major telecommunications service providers and equipment companies to date. Essex has met with important leading edge systems and service providers in the optical networking markets who have indicated interest in encouraging their vendors to commence field testing the prototypes of the HYPERFINE WDM family of devices--the Optical Add/Drop Multiplexer, the optical spectrum analyzer, the Virtual OC-768 device and the Wavelength Locker. Further, Essex will put such units in field trials to work with the end customer to determine what the final production units will contain.

TECHNOLOGY DEVELOPMENT AGREEMENTS WITH STRATEGIC PARTNERS

Pursuant to the ongoing field trial process, Essex will likely seek to partner with or enter into licensing arrangements with major industry participants in order to successfully introduce its technology and products. It is expected that major systems and component manufacturers will become "Alpha Partners" wherein they will specify particular applications of HYPERFINE WDM and place orders contingent on Essex's satisfaction of their specifications.

In addition to these specific development agreements, Essex intends to seek one or more strategic partners with experience and stature in the telecommunications industry to better position the Company to meet its aggressive product development schedule and undertake final product design and large-scale manufacturing. Such a strategic alliance could provide for a license

to utilize Essex technology in one or more specific market applications and could also include the formation of a broad partnership to develop new products based upon the expertise and intellectual property of Essex.

INCORPORATE COMMERCIALLY AVAILABLE OPTICAL COMPONENTS

In designing its initial products for use in optical networks, Essex has sought to use commercially available hardware and outsource our glass coatings for use in our products. The Company believes that by using these third-party components and the services of other providers, Essex will benefit from the research and development of the vendors of these products, as well as

from the efficiencies of scale that these vendors have already achieved by producing components for many customers in higher volumes than Essex could produce. As a result, the Company believes that it can more quickly bring to market a broad-based product line at a lower cost than if the Company sought to maintain captive manufacturing facilities for its component and glass coating needs.

OUTSOURCE PRODUCT DESIGN AND MANUFACTURING

When its optical networking devices reach the commercial manufacturing stage, the Company intends to outsource the manufacturing of its products. Essex believes that this will enable the Company to reduce its cost structure and to maintain its focus on the development of value-added intellectual property and technology for integration into our optical devices and components. Historically, many optical networking companies have manufactured their own products in order to implement specialized manufacturing techniques. However, Essex has experience in working with subcontractors for product design and manufacturing and management believes that the quality and consistency of optical design and manufacturing techniques have evolved such that it is possible to engage third party product designers and manufacturers to build the Company products without sacrificing quality or performance. Indeed, the Harris relationship has added considerable capability that Essex could not afford to duplicate in house. Harris has significant capability in manufacturing optical components and the two companies have worked together for many years; thus, complementing each other well. Harris has supported HYPERFINE WDM by providing economical and effective services to Essex through the prototype stages of the product and is poised to manufacture in volume. In particular, Harris engineers have been invaluable in design of the final product including advising on the ultimate manufacturability and reliability of HYPERFINE WDM.

SPECIALIZED LICENSING PARTNERSHIPS

Similarly, Essex may seek to partner with one or more leading suppliers of integrated circuits to develop chipsets that incorporate DSL technology to develop and deploy OPERA(TM) technology for this application. The Company would enter into such arrangements to issue exclusive or non-exclusive licenses to any such partner to manufacture and sell the chipsets integrating the OPERA(TM) technology in exchange for the right to receive royalty payments from such business relationships.

PURSUE COMPLEMENTARY JOINT VENTURES AND ACQUISITIONS

In addition, Essex may seek to take advantage of market fragmentation in several of its legacy areas of business by seeking opportunities for consolidation. For example, Essex management believes that market fragmentation in the area of government contract R&D for national security related technology

and associated software systems present opportunities for consolidation by companies, such as Essex, which have long experience in these areas. Essex plans to draw on its legacy of work with government agencies in the areas of fiber optic communications, signal processing and CDMA telecommunications systems to pursue strategic affiliations or acquisitions that will provide the Company with additional key technologies, complement technology development activities, enhance its related software development capabilities, increase its "smart revenue" generation, increase its sales channels to national security related government programs, and add to its overall level of expertise.

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 EXPECT TO CONTINUE TO INCUR NET LOSSES FOR THE FORESEEABLE FUTURE, AND MAY NEVER ACHIEVE OR SUSTAIN PROFITABILITY.

We incurred a net loss for our fiscal years ended December 30, 2001 and December 31, 2000. The Company also incurred net losses in fiscal 1998 and 1997. In 1999, we reported a small net income. As of fiscal year end 2001, we had an accumulated deficit of $12.2 million. Our revenues have declined from $3.3 million in fiscal 2000 to $2.6 million in fiscal 2001, primarily as a result of our focus on commercial optoelectronics telecommunications products which have not yet generated revenue. We expect to incur net losses for the foreseeable future. To date, we have primarily funded our operations from the sale of equity securities. We also expect to incur significant product development and administrative expenses, and, as a result, we will need to significantly increase revenues to achieve profitability. Even if we achieve profitability, given the competition in, and the evolving nature of, the optical and wireless telecommunications markets, we may not be able to sustain or increase profitability on a quarterly or annual basis. As a result, we will need to generate significantly higher revenues while containing costs and operating expenses if we are to become and remain profitable.

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

Since September 2000 we have received approximately $5.0 million from private investors to pursue commercial applications of our optical and wireless communications technologies and resulting products. We have commitments for an additional $1 million of investment on an as needed basis from these private investors. 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 cash flows. The funds available and committed are projected to last through 2002. 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 immediately reduce expenditures.

RISKS RELATED TO OUR BUSINESS

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

We have traditionally derived our revenues from providing engineering and signal processing services to the U.S. Government. While we continue to provide these services, over the past year we have increasingly emphasized 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. Further, due to our shift in focus, we have difficulty accurately forecasting our revenue, and we have limited historical financial data upon which to base operating expense 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-evolving industry.

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 2001, contracts with the U.S. Government, primarily the military services and other departments and agencies of the Department of Defense (DoD), accounted for approximately 73% or $1.9 million of our revenues. In fiscal 2000, revenues on U.S. Government programs were $2.4 million, or 73% of our revenues. The reduction in revenues from commercial customers in 2000 and 2001 has increased dependence upon such government program revenues. Our business with the agencies of the Department of Defense (DoD) is focused increasingly on our proprietary optoelectronics technology and products. Until we are able to generate revenues from sales of our commercial optoelectronics telecommunication products, our results of operations will continue to depend on sales to the DoD and other U.S. Government departments and agencies. The loss of any significant contract or a significant reduction in or cancellation of these contracts would adversely affect our revenues and impair our ability to continue the development of our proprietary communications products.

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:

- suspend us from receiving new contracts pending resolution of alleged violations of procurement laws or regulations;
- terminate existing contracts;
- reduce the value of existing contracts;
- audit our contract-related costs and fees, including allocated indirect costs; and
- 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 22% and 45% of our sales for fiscal 2000 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.

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:

- develop marketing, sales and customer support capabilities;
- obtain customer and/or regulatory certification;
- respond to rapid technological advances; and
- 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 or remain in business.

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. We have entered into agreements with our employees that limit the employee's ability to work for a competitor following termination of employment. We expect our competitors will respect these agreements and not interfere with them. We can make no assurances of that, or that we will be able to retain all of our key contributors or attract new personnel to add to or replace them. The loss of key personnel would prevent us from completing current development and restrict new development.

IF BROADBAND WIRELESS TECHNOLOGY OR OUR IMPLEMENTATION OF THIS TECHNOLOGY IS NOT BROADLY ACCEPTED, WE WILL NOT BE ABLE TO EXPAND OUR BUSINESS.

The future success of OPERA(TM) and other wireless products we are currently developing depends on high-speed wireless communications products gaining market acceptance as a means to provide improved voice and data communications services. Because these markets are relatively new, it is difficult to predict which market segments will develop or expand. We have recently invested and expect to continue to invest significant time and resources in the development of new products for this market. In the event that service providers adopt technologies other than the high-speed access and other wireless technologies or delay in their deployment of high-speed wireless communication products, we will not be able to generate significant revenues from our wireless products and our results of operations and financial condition could be materially and adversely affected.

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:

- changes in customer demand;

- technological developments that make our products less competitive;

- evolving industry standards; or

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

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 BUSINESS AND PROSPECTS.

Our future growth and success largely depends on the commercial success of our optical and wireless telecommunications products being developed. We have not begun 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. If our customers do not successfully test and deploy our products and technologies, we may not be able to reach profitability or remain in business.

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 large companies, such 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 our 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. Moreover, our competitors may foresee the course of market developments more accurately than we do and could develop new technologies that compete with our products or render our products obsolete. 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 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 though 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 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 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 eliminate 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:

- stop selling, incorporating or using our products that include the challenged intellectual property;
- 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
- redesign those products that use the technology.

If we are forced to take any of these actions, our business would 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 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 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:

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

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 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. If this growth does not continue, we may be unable to reach profitability or remain in business.

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 experience:

- loss of, or delay in, revenue and loss of market share;
- loss of existing customers;
- failure to attract new customers or achieve market acceptance;
- diversion of development resources;
- increased service and warranty costs;
- legal actions by our customers; and
- 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 management and resources.

RISKS RELATED TO OUR COMPANY

WE ARE CONTROLLED BY A LIMITED NUMBER OF STOCKHOLDERS THAT WILL BE ABLE TO EXERT

SIGNIFICANT INFLUENCE OVER MATTERS REQUIRING STOCKHOLDER APPROVAL.

We are controlled by two private investment firms, GEF Optical Investment Company, LLC and Networking Ventures, L.L.C. We refer to these firms as the "Investors." Together the Investors own preferred stock having voting rights equivalent to 51% of the voting power of all shares of voting stock on all stockholder matters through mid-September 2002, at which time such preferred stock will be converted to 2 million shares of common stock. In addition, the Investors and their affiliates have directly acquired or contracted to acquire 1,026,000 shares of common stock. Accordingly, the Investors will control us and have the power to elect all of our directors, appoint new management and approve 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 investors might be willing to pay for our common stock. The interests of the 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 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 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 Investors, or the perception that such sales may occur, could have a material adverse effect on prevailing market prices.

At March 15, 2002, we have outstanding approximately 5.3 million shares of our common stock, 776,000 of which were issued and sold 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

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 Investors have been granted rights to have up to 4,000,000 shares of common stock issuable upon conversion of preferred stock and underlying warrants registered under the Securities Act upon demand. In addition, 660,000 shares of common stock held by the Investors are covered by a registration statement on Form S-2 that allows the Investors to sell the shares from time to time on the over-the-counter market or otherwise. Sales of substantial amounts of common stock under Rule 144 or pursuant to the Investor'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.

OTHER BUSINESS INFORMATION

MARKETING AND FINANCING

From September 2000 through December 2001, the Company has closed on several private placement funding transactions with GEF Optical Investment Company, LLC and Networking Ventures, L.L.C., or their affiliates (the "Investor Group") aggregating $4,650,000. 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 has expanded 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.

RECENT DEVELOPMENTS

In March 2002, the Company amended existing private placement agreements for its common stock with its Investor Group or their affiliates. The agreements

were increased from $500,000 to $1.5 million, of which $250,000 was received in December 2001 and $500,000 was received in the first quarter of 2002. The remaining $750,000 is subject to a call by the Company on an as needed basis during 2002. These agreements provide for the shares of common stock to be issued at an initial price per share of $6.50, subject to effective downward price adjustment, but not less than $3 per share, should additional private placements be done with other institutional investors during 2002 at a lower price per share.

The proceeds will primarily be used to expand development in the Company's optoelectronic telecommunications device technologies.

CONTRACT MIX

Services of the Company are performed under fixed-price (45% and 22% in 2001 and 2000, respectively), cost-reimbursement (39% and 45% in 2001 and 2000, respectively) or time and material (16% and 33% of revenues in 2001 and 2000, 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). In both 2001 and 2000, 73% of the Company's total revenues were derived from government DoD contracts or subcontracts. Government military programs include work principally with 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 2001, the Company worked on several contracts for Small Business Innovation Research (SBIR) and a similar program that deal with ImSyn(TM) Processor applications. Work based on the patented ImSyn(TM) Processor has continued on a DoD program and an application contract by the Defense Advanced Research Projects Agency (DARPA) for the development of advanced synthetic aperture radar (SAR) techniques. This effort is a Phase 2 SBIR. Naval Air Warfare Center, Patuxent Naval Air Station, had Essex install certain performance upgrades to its ImSyn(TM) Processor. This work was in support of the Naval Air Warfare Center Advanced Development NP-3 Synthetic Aperture Radar (SAR) program. The U.S. Army Space Missile Defense Command is using Essex to create related algorithms for enhanced 2D or 3D imaging using Essex's optical hardware processing and techniques.

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. 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 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.

HYPERFINE WDM

The first HYPERFINE WDM U.S. and International patents 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. A provisional U.S. patent application was filed on March 19, 2001 for a HYPERFINE WDM wavelength locker and on July 20, 2001 a U.S. provisional patent application was filed for integrated optics HYPERFINE WDM technology. On January 22, 2002 two full U.S. and International utility patent applications were filed for a HYPERFINE WDM add/drop multiplexer and for a HYPERFINE WDM optical code division multiple access system.

OPERATM

The OPERA(TM) application was filed with the U.S. and International Patent offices 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 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.

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. Applications for the same set of claims as the U.S. patent are in process in Canada and Japan. 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. Another European application for a subset of the claims in the U.S. patent is still in process.

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 a full U.S. and International utility patent application entitled "Efficient Fourier Transform Algorithm For Non-Uniform Data" was filed within the VLST technology family.

COMPETITION

Competition for U.S. Government and commercial professional and technical services contracts has grown in intensity and proposals have become increasingly costly. This stimulated the Company to initiate its program to develop proprietary products and services, particularly for the commercial market. As such proprietary items are developed, the Company has relied increasingly upon offers of its specialized optical engineering capabilities, sharply reducing resources applied in response to proposals for solely professional and technical services. Examples of such proprietary items include HYPERFINE WDM and OPERA(TM) as well as ImSyn(TM) processors.

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 supplies 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.

BACKLOG

As of December 30, 2001, the Company had a total backlog (funded and unfunded) of approximately $621,000 as compared with $1,229,000 at December 31, 2000. Of these amounts, backlog was $567,000 funded and $54,000 unfunded at yearend 2001 as compared to all backlog being funded at yearend 2000. In early 2002, the Company was awarded a follow-on contract for $1,299,000 with an effective date of January 1, 2002. This effectively increased yearend 2001 backlog to $1,920,000, of which $1,025,000 was funded and $894,000 was unfunded. 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 $2,417,000 and $771,000 in 2001 and 2000, respectively, on internally-funded research and development activities.

EMPLOYEES

As of February 28, 2002, the Company had approximately 44 employees, of whom 29 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 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

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 actual 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.

	2001		2000	
	High	Low	High	Low
First Quarter.....	$ 5.25	$ 2.22	$ 3.31	$ 1.00
Second Quarter.....	4.80	2.88	2.25	0.63
Third Quarter.....	6.70	3.30	5.13	1.06
Fourth Quarter.....	7.50	5.55	4.09	1.50

At March 1, 2002, there were approximately 1,500 beneficial owners of the Company's Common Stock which includes 297 holders of record.

SALE OF UNREGISTERED SECURITIES

In December 2001, the Company sold 38,462 shares of unregistered Common Stock to an accredited investor affiliated with the Investor Group, for $250,000. The stock was sold in reliance upon the exemption from registration provided for private offerings provided by Section 4(2) of the Securities Act of 1933, as amended (the "Securities Act") and Regulation D. Appropriate restrictive legends were placed on the shares. No placement agent or underwriter was involved in the sale of the common stock and the Company did not pay any commissions. This private placement provides that if other institutional private placements are made during 2002 at a lower price per share, that the effective share price will be adjusted.

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."

STATUS

The Company's business is focused upon applications of its proprietary optoelectronics technology and products.

In September 2000 the Company closed on a private placement funding transaction with the Investor Group. Under the terms of the funding, the Company received $1,250,000 in 2000 and $750,000 in 2001. The Investor Group received preferred stock that must be converted into 2,000,000 shares of common stock by mid-September 2002. The Investor Group was also issued warrants for an additional 2 million shares of common stock. The warrants can be exercised for a nominal price under certain terms and conditions. In December 2000, the Company received a separate additional investment of $400,000 from the Investor Group for the purchase of 160,000 shares of common stock. In March 2001, the Company closed on a $2 million private placement funding transaction with the same Investor Group. During 2001, the Company issued 500,000 shares of its common stock in connection with this transaction. As part of a $1.5 million financing

commitment from the Investor Group or its affiliates, in December 2001, the Company sold 38,462 shares of common stock for $250,000. In the first quarter of 2002, the Company received $500,000 under this commitment for 76,924 shares of common stock. See Note 11 of Notes to Financial Statements for further details.

The Company's primary use of the funds is to patent, develop and commercialize its key leading-edge optical technologies, principally the fiberoptic HYPERFINE WDM devices and wireless OPERA(TM) technology. The Company began the internal work to support patent filings and the related development work on the technology devices during the third quarter of 2000. 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 these devices required a diversion of labor resources from revenue generation in 2001 and 2000 and is expected to continue to do so in 2002. The Company may hire additional personnel to augment existing technical staff. Since the Company is investing the new capital in such research and development, the financial statements reflect higher than normal expenses which increases the Company's reported losses.

Because of the emphasis on development, the Company has been unable 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. Work based on or related to the patented ImSyn(TM) Processor and other Essex optical hardware processing and techniques continues for the development of advanced SAR techniques. These efforts generally fall under SBIR programs.

The Company is working to reduce the deficit from such operations and to improve its cash flows. Backlog and order issues will continue to be major concerns until substantial improvements realized from customer funded development programs have been achieved. The

Company has established significant reserves against its ImSyn(TM) inventory for such changes and delays in the introduction of upgraded units. The existing configuration of finished goods in inventory is being redesigned. The current inventory has been written down to its estimated net realizable value as components or subassemblies in the redesigned and upgraded units.

The Company currently does not have sufficient resources to bring its telecommunications and optoelectronics processing devices to market. Accordingly, the Company will likely have to partner with or enter into licensing arrangements with major industry participants in order to successfully introduce its technology and products. There can be no assurance that the Company will be successful in entering into such agreements.

2001 COMPARED TO 2000

Revenues were $2,642,000 and $3,255,000 for fiscal 2001 and 2000, respectively, a decrease of 19%. The decrease was primarily due to the reduction in revenue from commercial satellite communications systems as discussed below. The Company's revenue on U.S. Government programs for research on the use of the Company's optoelectronics products was approximately $2.2 million in both fiscal 2001 and 2000, respectively, representing 82% of revenue in 2001 compared to 67% of revenue in fiscal 2000. The Company has a backlog of approximately $1,849,000 on programs related to optoelectronic devices and services.

The Company's work in satellite communication systems for General Dynamics Decision Systems (successor to Motorola on this program work) accounted for revenues of $431,000 in fiscal 2001 and $733,000 in fiscal 2000, respectively. This represented approximately 16% and 23% of revenues for fiscal 2001 and fiscal 2000, respectively. There has been a decrease in revenues from this program since 1999 as the Company's involvement on the initial satellite system was essentially completed in December 1999. The Company continues to bid on new work for the current and successor satellite systems. The balance of the Company's revenues in fiscal 2000 came from providing software and engineering services primarily to other government prime contractors and from final billings for recovery for excess indirect costs on government contracts completed in prior years.

There was an operating loss of $3,577,000 in fiscal 2001 compared to an operating loss of $1,183,000 in fiscal 2000. Cost of goods sold and services provided as a percentage of revenue (excluding revenue from recovery of prior year excess costs) for fiscal 2001 was relatively unchanged at 51.6% as compared to 53.5% in fiscal 2000.

Research and development (R&D) increased in fiscal 2001 to approximately $2,417,000 from approximately $771,000 in fiscal 2000. The majority of the R&D costs were incurred on efforts related to the development of optical telecommunications technology. The Company has greatly increased its R&D spending since the September 2000 capital infusions and expects to continue its R&D spending in the optical and telecommunications areas in fiscal 2002.

Selling, general and administrative expenses in both fiscal 2001 and fiscal 2000 remained high and increased in fiscal 2001 as a percentage of revenue as the Company continues to seek to commercialize its optoelectronic products and services. The Company increased its expenditures in fiscal 2001 for marketing, consultants and public relations relating to its telecommunications device technology.

CORPORATE MATTERS

The Company had net interest income of $8,000 in 2001 compared to net interest expense and debenture financing amortization costs of $9,000 in 2000. In these amounts, the Company netted $26,000 and $39,000 of interest income in 2001 and 2000, respectively, primarily from the temporary investment of funds from the private placements. In 2001, there were no debenture financing amortization costs and there were lower average accounts receivable financings under its working capital financing agreement.

The Company recognized the majority of its remaining tax benefit amount recoverable from the carryback of net operating losses prior to 1994. The Company is in a net operating loss (NOL) carryforward position. No provision or benefit from income taxes was recognized in 2001 or 2000.

LIQUIDITY AND CAPITAL RESOURCES

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

	SELECTED FINANCIAL DATA ($ Thousands) as of	
	December 30, 2001	December 31, 2000
Total Assets	$ 1,553	$ 1,619
Working Capital	$ 112	$ 736
Current Ratio	1.13:1	2.39:1
Capital Leases	$ 191	$ 23
Total Debt/Financing	$ 191	$ 23
Stockholders' Equity	$ 645	$ 1,091

The net cash provided by financing activities in 2001 and 2000 is from the Company completing several private placements of equity securities to its Investor Group or their affiliates. The Company received $3,400,000 and $1,250,000 in 2001 and 2000, respectively, from these private placements. The funds have been and are to be 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 2001 and 2000, primarily due to the increased expenditures for development of its optoelectronics products and services, particularly in the optical telecommunications device technologies field. The Company's working capital and ratio at the end of fiscal 2001 decreased primarily due to these losses. The Company plans to continue R&D spending in 2002 in the optoelectronics operations. In order to maintain spending levels, the Company will need additional funds.

The Company is seeking to establish joint ventures or strategic partnerships including licensing of its technologies to major industrial concerns to facilitate these goals. The Company will also seek additional funds under appropriate terms from private sources, including the Investor Group,

to continue to finance development and to achieve initial market penetration. As part of this funding effort, the Investor Group or their affiliates committed to purchase an additional $1.5 million of Common Stock at an initial per share

price of $6.50 subject to an anti dilution adjustment feature for issuing additional shares should other financings be done in 2002 at a lower price per share. Of the $1.5 million, $250,000 was received in December 2001 and $500,000 was received in the first quarter of 2002. (See "Description of Business - Recent Developments".) 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 financial position.

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 interest fee and other processing charges, payable at the time each invoice is paid. There were no funds advanced as of December 30, 2001.

The Company believes that it will be able to meet its 2002 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 the Company expects that it will need significant additional financing in the future.

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.

PART III

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

DIRECTORS, EXECUTIVE OFFICERS, PROMOTERS AND CONTROL PERSONS

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

NAME	AGE	POSITION
Leonard E. Moodispaw	59	President; Chief Executive Officer and Director (3)(4)
Terry M. Turpin	59	Sr. Vice President; Chief Technical Officer and Director
Joseph R. Kurry, Jr.	51	Sr. Vice President; Treasurer and Chief Financial Officer
Matthew S. Bechta	48	Vice President
Craig H. Price	52	Vice President
Gerald J. Davieau	45	Vice President
Kimberly J. DeChello	41	Chief Administrative Officer and Secretary
H. Jeffrey Leonard	47	Chairman; Director (4)
Frank E. Manning	82	Chairman Emeritus; Director (2)
John G. Hannon	64	Director (2)
Robert W. Hicks	64	Director (1)
Ray M. Keeler	70	Director (1)(2)
Marie S. Minton	40	Director (1)
Caroline S. Pisano	35	Director (3)(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 Ethics Committee of the Board of Directors.
(4) Member of the Executive Committee of the Board of Directors.

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. Early in his career, Mr. Moodispaw was engaged in the private practice of law, and from 1965 to 1978 was a senior manager in the National Security Agency (NSA). He is the Founder of the Security Affairs Support Association (SASA) that brings government and industry together to solve problems of mutual interest. 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.

Terry M. Turpin was elected a Director of the Company in January 1997. He is Senior Vice President and Chief Technical Officer 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. 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. Mr. Kurry was controller of ManTech International Corporation from December 1979 to March 1985. Mr. Kurry received a Bachelor of Science degree in Business Administration in 1972 from Georgetown University, in Washington, D.C. and is a Certified Public Accountant.

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 is also the acting Director of Business Operations responsible for program controls, marketing support, information systems, security and purchasing. 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 Bachelor of Science degree in Electrical Engineering from Spring Garden College, Pennsylvania and a Master of Science degree in Computer Science from the Johns Hopkins University.

Craig H. Price was elected Vice President in October 1993. Dr. Price, Director of Optoelectronic Products, 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.

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. From 1996 to 1997 Mr. Davieau was technical director of telecommunications systems engineering operations. Mr. Davieau is responsible for design and analysis of wireless satellite applications. He is listed on more than 20 Motorola 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.

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.

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 five 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. Since 1989, 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 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.

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.

Marie S. Minton was elected a Director of the Company in December 2000. Ms. Minton is the Chief Financial Officer and Director 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 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 and the Association for Investment Management and Research. Ms. Minton is a Certified Public Accountant and a Chartered Financial Analyst.

Caroline Pisano was elected a Director of the Company in September 2000. She 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 August 1996 to March 2000, Ms. Pisano served as 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 with Arthur Andersen & Co. 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.

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 30, 2001.

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 Salary($)(1)	Bonus ($)	Other Annual Compensation ($)(2)	LONG-TERM A - Sec Und Opti
Leonard E. Moodispaw	2001	175,032	0	1,616	8
President and CEO	2000	136,404	0	0	10
	1999	124,800	0	0	4
Terry M. Turpin	2001	155,064	0	4,652	7
Senior Vice President	2000	134,496	25,000	4,785	5
and Director	1999	122,720	0	3,682	1
Joseph R. Kurry, Jr.	2001	134,992	0	4,050	4
Treasurer, Senior Vice	2000	122,804	15,000	4,134	6
President and CFO	1999	114,400	0	3,432	1
Craig H. Price	2001	134,992	0	4,050	2
Vice President	2000	114,184	15,000	3,875	2
	1999	103,260	0	3,098	1
Matthew S. Bechta	2001	130,000	0	3,900	2
Vice President	2000	112,840	10,000	3,685	3
	1999	102,960	0	3,089	1

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

1999 - 2001. The total authorized contribution under the matching contribution feature of the Plan was approximately $64,000 in 2001. 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 1999 and 2001.

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 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 1999 - 2001, no awards were made. There were approximately 4,000 shares remaining in the plan as of December 30, 2001.

EMPLOYMENT AGREEMENTS

In September 2000 the Company entered into two-year employment agreements with Terry M. Turpin, Craig H. Price and Matthew S. Bechta. The agreements provide for an annual base salary of $155,000, $135,000 and $130,000 for each of Messrs. Turpin, Price and Bechta, respectively. The agreements also contain standard intellectual property and confidentiality provisions.

The above agreements restrict the individuals' right to compete with the Company and prohibit misappropriation of proprietary rights of the Company, both during and after the term of employment.

OPTIONS TO PURCHASE SECURITIES

The Company has established an Essex Corporation 2001 Stock Option and Appreciation Rights Plan (the "2001 Plan"). The 2001 Plan provides 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 2001 Plan also provides for grants of stock appreciation rights ("SARs") in connection with the grant of options under

this 2001 Plan. The exercise price of an Incentive Option under the 2001 Plan may not be 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 2001 Plan reserves 300,000 shares of Common Stock for issuance. As of February 28, 2002, there have been no options or rights granted under the 2001 Plan.

The Company has established a 2000 Stock Option and Appreciation Rights Plan (the "2000 Plan"). The 2000 Plan as presently in effect is similar to the 2001 Plan described above. The 2000 Plan reserves 300,000 shares of Common Stock for issuance. As of February 28, 2002, options for 263,800 shares of the Company's Common Stock were outstanding at exercise prices ranging from $3.00 - $6.07. As of February 28, 2002, there remained 36,200 shares available for future grants of options or SARs. The Company has established a 1999 Stock Option and Appreciation Rights Plan (the "1999 Plan"). The 1999 Plan as presently in effect is similar to the Plans described above. The 1999 Plan reserves 300,000 shares of Common Stock for issuance. As of February 28, 2002, options for 300,000 shares of the Company's Common Stock were outstanding at exercise prices ranging from $2.04 - $3.96. The Company also has established a 1998 Stock Option and Appreciation Rights Plan (the "1998 Plan"). The 1998 Plan as presently in effect is similar to the Plans described above. The 1998 Plan reserves 292,300 shares of Common Stock for issuance. As of February 28, 2002, options for 292,000 shares of the Company's Common Stock were outstanding at exercise prices ranging from $1.00 - $6.07. As of February 28, 2002, there remained 300 shares available for future grants of options or SARs.

In addition, the Company has a 1996 Stock Option and Appreciation Rights Plan (the "1996 Plan"). The 1996 Plan as presently in effect is similar to the Plans described above. The 1996 Plan reserves 225,818 shares of the Company's Common Stock for issuance. As of February 28, 2002, options for 225,668 shares of the Company's Common Stock remained outstanding and exercisable under this Plan at exercise prices ranging from $1.00 - $3.96. As of February 28, 2002, there remained 150 shares available for future grants of options or SARs.

The Company had an Option and Stock Appreciation Rights Plan which expired as to new grants on January 31, 1997. As of February 28, 2002, options for 243,150 shares of the Company's Common Stock remained outstanding and exercisable under this Plan at a price of $3.00 per share.

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.

The following table shows for the fiscal year ended December 30, 2001 for the persons named in the Summary Compensation Table, information with respect to options to purchase Common Stock granted during 2001.

STOCK OPTIONS GRANTS
FOR FISCAL YEAR ENDED DECEMBER 30, 2001

NAME	NUMBER OF SECURITIES UNDERLYING OPTIONS GRANTED (#)	% OF TOTAL OPTIONS/ SARS GRANTED TO EMPLOYEES IN FISCAL YEAR	EXERCISE OR BASE PRICE ($/SH)	EXPIRATION DATE
Leonard E. Moodispaw	60,000 (1)	10.6	3.96	01/22/11
	25,000 (2)	4.4	6.07	10/02/11
Terry M. Turpin	50,000 (1)	8.8	3.96	01/22/11
	20,000 (2)	3.5	6.07	10/02/11
Joseph R. Kurry, Jr.	30,000 (1)	5.3	3.96	01/22/11
	10,000 (2)	1.8	6.07	10/02/11
Craig H. Price	15,000 (1)	2.6	3.96	01/22/11
	10,000 (2)	1.8	6.07	10/02/11
Matthew S. Bechta	15,000 (1)	2.6	3.96	01/22/11
	10,000 (2)	1.8	6.07	10/02/11

The following table shows for the fiscal year ended December 30, 2001 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.

AGGREGATED OPTION/SAR EXERCISES AND FY-END OPTION/SAR VALUES
TABLE FOR FISCAL YEAR ENDED DECEMBER 30, 2001

NAME	SHARES ACQUIRED ON EXERCISE (#)	VALUE REALIZED ($)	NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS AT FY-END (#) EXERCISABLE/ UNEXERCISABLE	VALUE OF UNEXERCISED IN-THE-MONEY OPTIONS AT FY-END($)(1) EXERCISABLE/ UNEXERCISABLE
Leonard E. Moodispaw	---	---	333,000/12,500	$1,721,875/$17,250
Terry M. Turpin	---	---	126,800/53,200	$665,752/$143,468
Joseph R. Kurry, Jr.	---	---	165,000/5,000	$802,665/$6,900
Craig H. Price	1,500	$ 6,510	86,000/12,500	$425,925/$33,075

Matthew S. Bechta	1,850 3,000	$11,100 $12,000	82,650/12,500	$411,903/$33,075

REMUNERATION OF DIRECTORS

The Company's Board of Directors generally meets quarterly. Additionally, 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 2001 the Board held two meetings; the entire membership of the Board was present at both meetings. There are four Board members who are employed by either Global Environment Fund or Networking Ventures, L.L.C. and who have waived any board fees.

11. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS ANDMANAGEMENT

The following table and accompanying notes set forth as of December 30, 2001, 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)		Approximate Percentage of CLASS
John G. Hannon (2)	Common Stock	2,796,387	39.1
	Preferred Stock	500,000	100.0
H. Jeffrey Leonard (3)	Common Stock	2,789,200	39.0
	Preferred Stock	500,000	100.0
Caroline S. Pisano (4)	Common Stock	2,763,700	38.6
	Preferred Stock	500,000	100.0
Marie S. Minton (5)	Common Stock	2,757,700	38.5
	Preferred Stock	500,000	100.0
Terry M. Turpin (6)	Common Stock	430,493	8.1
Leonard E. Moodispaw (7)	Common Stock	390,150	7.1
Joseph R. Kurry, Jr. (8)	Common Stock	203,359	3.8
Matthew S. Bechta (9)	Common Stock	132,648	2.5
Frank E. Manning (10)	Common Stock	126,775	2.4
Craig H. Price (11)	Common Stock	108,728	2.1
Robert W. Hicks (12)	Common Stock	71,700	1.4
Ray M. Keeler (13)	Common Stock	47,500	**
James P. Gregory (14)	Common Stock	2,757,700	38.5
	Preferred Stock	500,000	100.0
Harry Letaw, Jr. (15)	Common Stock	669,859	13.0
Paul R. Young (16)	Common Stock	301,790	5.9
GEF Optical Investment			

Company, LLC (17)(21)	Common Stock	2,757,700	38.5
	Preferred Stock	500,000	100.0
Networking Ventures, L.L.C. (18)(21)	Common Stock	2,757,700	38.5
	Preferred Stock	500,000	100.0
Global Environment Capital Co. LLC ("GECC") (19)(21)	Common Stock	2,757,700	38.5
	Preferred Stock	500,000	100.0
All Directors and Executive Officers as a Group (14 persons) (20)	Common Stock	4,445,080	54.3
	Preferred Stock	500,000	100.0

12. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS - None

13. EXHIBITS AND REPORTS ON FORM 8-K

(a) (1) Financial Statements

(2) Exhibits

(b) Reports on Form 8-K
None.

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 27, 2002

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

Joseph R. Kurry, Jr.
Senior Vice President, Treasurer and Chief Financial Officer;
Principal Financial and Accounting Officer
March 27, 2002

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

/S/ JOHN G. HANNON	/S/ MARIE S. MINTON
John G. Hannon, Director	Marie S. Minton, Director
March 27, 2002	March 27, 2002
/S/ ROBERT W. HICKS	/S/ LEONARD E. MOODISPAW
Robert W. Hicks, Director	Leonard E. Moodispaw, Director
March 27, 2002	March 27, 2002
/S/ RAY M. KEELER	/S/ CAROLINE S. PISANO
Ray M. Keeler, Director	Caroline S. Pisano, Director
March 27, 2002	March 27, 2002
/S/ H. JEFFREY LEONARD	/S/ TERRY M. TURPIN

H. Jeffrey Leonard, Director March 27, 2002	Terry M. Turpin, Director March 27, 2002

/S/ FRANK E. MANNING

Frank E. Manning, Director
March 27, 2002

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 30, 2001 and the related statements of operations, changes in stockholders' equity and cash flows for the fiscal years ended December 30, 2001 and December 31, 2000. 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 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 30, 2001 and the results of its operations and its cash flows for the fiscal years ended December 30, 2001 and December 31, 2000 in conformity with accounting principles generally accepted in the United States of America.

Stegman & Company

Baltimore, Maryland
February 22, 2002

ESSEX CORPORATION
BALANCE SHEET
AS OF DECEMBER 30, 2001

ASSETS	
CURRENT ASSETS	
Cash	$ 568,178
Accounts receivable, net	284,649
Prepayments and other	76,969
Inventory	29,983
	959,779
PROPERTY AND EQUIPMENT	
Computers and special equipment	849,453
Furniture, equipment and other	260,526
	1,109,979
Accumulated depreciation and amortization	(747,059)
	362,920
OTHER ASSETS	
Patents, net	211,030
Other	19,213
	230,243
TOTAL ASSETS	$ 1,552,942
LIABILITIES AND STOCKHOLDERS' EQUITY	
CURRENT LIABILITIES	
Accounts payable	$ 313,741
Accrued wages and vacation	239,476
Capital leases	130,961
Accrued retirement	62,000
Other accrued expenses	101,387
	847,565
LONG-TERM DEBT	
Capital leases, net of current portion	60,078
Total Liabilities	907,643
COMMITMENTS AND CONTINGENCIES (NOTE 6)	
STOCKHOLDERS' EQUITY	
Common stock, no par value; 25 million shares authorized; 5,155,605 shares issued and outstanding	8,870,044
Convertible preferred stock, $0.01 par value; 1 million total shares authorized; 500,000 shares of Series B authorized and outstanding	2,000,000
Additional paid-in capital	2,000,000
Accumulated deficit	(12,224,745)
Total Stockholders' Equity	645,299

TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 1,552,942

ESSEX CORPORATION
STATEMENTS OF OPERATIONS
FOR THE FIFTY-TWO WEEK FISCAL YEAR ENDED
DECEMBER 30, 2001 AND
FOR THE FIFTY-THREE WEEK FISCAL YEAR ENDED
DECEMBER 31, 2000

	2001	2000
Revenues	$ 2,641,776	$ 3,255,500
Cost of goods sold and services provided	(1,342,444)	(1,625,644)
Research and development	(2,416,837)	(771,234)
Selling, general and administrative expenses	(2,459,631)	(2,041,482)
Operating Loss	(3,577,136)	(1,182,860)
Interest income (expense), net and debenture financing amortization	7,937	(8,556)
Loss Before Income Taxes	(3,569,199)	(1,191,416)
Provision for income taxes	--	--
Net Loss	(3,569,199)	(1,191,416)
Beneficial conversion feature of convertible preferred stock	(750,000)	(1,250,000)
Net Loss Attributable to Common Stockholders	$ (4,319,199)	$ (2,441,416)
Weighted Average Number of Shares Outstanding	6,493,665	4,717,276
Basic Loss Per Common Share	$ (0.67)	$ (0.52)
Diluted Loss Per Common Share	$ (0.67)	$ (0.52)

ESSEX CORPORATION
STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
FOR THE FISCAL YEARS ENDED DECEMBER 30, 2001 AND DECEMBER 31, 2000

	Common Stock				Prefe
	Shares Issued	Amount	Shares Issued	Amount	Additi Paid- Capit
BALANCE, DECEMBER 26, 1999	4,397,861	$ 439,786	--	$ --	$ 5,634
Amend par value to no par	--	5,634,234	--	--	(5,634
Preferred stock issued	--	--	312,500	1,250,000	
Beneficial conversion feature of preferred stock	--	--	--	--	1,250
Common stock issued	160,000	400,000	--	--	
Stock options exercised	12,500	12,500	--	--	
Stock option compensation	--	9,800	--	--	
Net loss	--	--	--	--	
BALANCE, DECEMBER 31, 2000	4,570,361	6,496,320	312,500	1,250,000	1,250
Preferred stock issued	--	--	187,500	750,000	
Beneficial conversion feature of preferred stock	--	--	--	--	750
Common stock issued	538,462	2,250,000	--	--	
Stock options exercised	49,182	91,806	--	--	
Retired shares/cashless stock option tender	(2,400)	(17,082)	--	--	
Stock option compensation	--	49,000	--	--	
Net loss	--	--	--	--	
BALANCE, DECEMBER 30, 2001	5,155,605	$ 8,870,044	500,000	$ 2,000,000	$ 2,000

ESSEX CORPORATION
STATEMENTS OF CASH FLOWS
FOR THE FISCAL YEARS ENDED DECEMBER 30, 2001 AND DECEMBER 31, 2000

	2001	2000
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net Loss	$ (3,569,199)	$ (1,191,416)
Adjustments to reconcile Net Loss to Net Cash Used In Operating Activities:		
Depreciation and amortization	193,117	98,674
Inventory valuation reserve	60,000	115,000
Stock option compensation expense	49,000	9,800
Other	(1,047)	(3,981)
Change in Assets and Liabilities:		
Accounts receivable	(119,035)	479,950
Inventory	(40,126)	15,321
Prepayments and other	(43,536)	13,362
Accounts payable	181,807	53,595
Accrued lease settlement	(107,766)	(15,682)
Other assets and liabilities	75,539	(222,787)
Net Cash Used In Operating Activities	(3,321,246)	(648,164)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of property and equipment	(81,965)	(54,072)
Proceeds from sale of fixed assets	1,047	5,471
Net Cash Used In Investing Activities	(80,918)	(48,601)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Sale of common stock	2,250,000	400,000
Sale of preferred stock	750,000	1,250,000
Exercise of stock options	74,724	12,500
Short-term repayments of receivables financing, net	--	(59,470)
Repayment of convertible debentures	--	(375,714)
Payment of capital lease obligations	(120,016)	(17,580)
Net Cash Provided By Financing Activities	2,954,708	1,209,736
CASH AND CASH EQUIVALENTS		
Net (decrease) increase	(447,456)	512,971
Balance - beginning of year	1,015,634	502,663
Balance - end of year	$ 568,178	$ 1,015,634

ESSEX CORPORATION
NOTES TO FINANCIAL STATEMENTS
FOR THE FISCAL YEARS ENDED DECEMBER 30, 2001 AND DECEMBER 31, 2000

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 2001 presentation.

REPORTING YEAR

The Company is on a 52-53 week fiscal year ending the last Sunday in December. Year 2001 was a 52-week fiscal year. Year 2000 was a 53-week fiscal year.

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 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. In recent years, the Company's revenues had been primarily from a commercial customer in the satellite communications business area. This work substantially ended in 1999 and limited other work has continued.

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 nearly $5 million in financing 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 increased expenditures for research and development of its optoelectronics products and services, particularly the optical

telecommunications device technologies, the

Company incurred significant losses in 2001 and 2000. The Company plans to continue research and development spending in 2002 in the optoelectronics operations. In order to maintain spending levels, the Company will need additional funds.

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 fixed-price contracts (approximately 45% and 22% of total revenues in 2001 and 2000, respectively) is recognized on the percentage-of-completion method of accounting based on costs incurred in relation to the total estimated costs. Revenue on cost-plus-fixed-fee contracts (approximately 39% and 45% of total revenues in 2001 and 2000, respectively) is recognized to the extent of costs incurred plus a proportionate amount of fee earned. Revenue on time and materials contracts (approximately 16% and 33% of total revenues in 2001 and 2000, 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)

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

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 2001 and in 2000.

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 and common shares 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.

ESSEX CORPORATION
NOTES TO FINANCIAL STATEMENTS
FOR THE FISCAL YEARS ENDED DECEMBER 30, 2001 AND DECEMBER 31, 2000

STATEMENTS OF CASH FLOWS

Supplemental disclosures of cash flow information are as follows:

		2001	2000
A.	Cash paid during the year for-		
	Interest	$ 16,600	$ 42,500
	Income taxes	$ --	$ --

B. In 2001 and 2000, there were new capital leases of $288,000 and $17,000, respectively.

2. ACCOUNTS RECEIVABLE

Accounts receivable consist of the following:

U.S. Government	
Amounts billed, including retainages	$ 263,733
Commercial and other	70,916
	334,649
Contract reserves and allowances for doubtful accounts	(50,000)
	$ 284,649

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 no funds advanced as of December 30, 2001.

ESSEX CORPORATION
NOTES TO FINANCIAL STATEMENTS
FOR THE FISCAL YEARS ENDED DECEMBER 30, 2001 AND DECEMBER 31, 2000

4. INVENTORY

Inventory costs are all related to the Company's ImSyn(TM) optoelectronic processor.

Finished Goods	$ 94,730
Systems In-Process	46,330
Purchased Parts	164,205
	305,265
Valuation Reserve	(275,282)
	$ 29,983

The existing configuration of finished goods in inventory is being redesigned. The current inventory has been written down to its estimated net realizable value as components or subassemblies in the redesigned and upgraded units and a new cost basis established. Depending upon the time to complete redesign and the ability to use the current inventory in the upgraded units, it is at least reasonably possible that management's view of the ultimate realizable value of inventory will change in the near term.

5. MAJOR CUSTOMER INFORMATION

The Company's largest customer was for subcontract 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 $1,030,000 (39%) of revenues in 2001 and $538,000 (17%) of 2000 revenues. A follow-on stage has begun in 2002.

6. COMMITMENTS AND CONTINGENCIES

LEASE OBLIGATIONS

The Company leases office space and certain equipment. As of December 30, 2001, the Company is committed to pay aggregate rentals under these leases as follows:

2002	$ 371,000
2003	$ 291,000
2004	$ 238,000
2005	$ 199,000

Rental expense charged to operations, including payments made under short-term leases, amounted to $261,000 and $174,000 in 2001 and 2000, 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.

ESSEX CORPORATION
NOTES TO FINANCIAL STATEMENTS
FOR THE FISCAL YEARS ENDED DECEMBER 30, 2001 AND DECEMBER 31, 2000

7. 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 $64,000 in 2001 and approximately $67,000 in 2000. 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 $2,000 and $7,000 were utilized to reduce annual expenses in 2001 and 2000, respectively.

8. INCOME TAXES

The components of the Company's net deferred tax asset account are as follows as of December 30, 2001:

NOL carryforward	$ 3,056,000
Acquisition NOL and tax credit carryforward	137,000
Tax credit carryforward	167,000
Inventory valuation reserve	96,000
Accrued employee benefit costs	42,000
Allowance for doubtful accounts	17,500
Other, net	30,000
Valuation Reserve	(3,545,500)
Net Deferred Tax Asset	$ --

The Company has a regular net operating loss ("NOL") carryforward of $8,732,000 and tax credit carryforwards of $167,000 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 2021.

As a result of an acquisition, the Company also has an NOL carryforward of approximately $392,000 that is available, subject to certain limitations, to offset future book and taxable income and taxes payable. This NOL

expires in 2002.

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 2001 or 2000.

ESSEX CORPORATION
NOTES TO FINANCIAL STATEMENTS
FOR THE FISCAL YEARS ENDED DECEMBER 30, 2001 AND DECEMBER 31, 2000

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

The Company has a 2001 Stock Option and Appreciation Rights Plan (the "2001 Plan"). This plan reserves 300,000 shares of the Company's unissued shares for option and stock appreciation rights ("SAR") grants. This plan expires in 2011. 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 were awarded. Increases and decreases in the market price of the stock also cause an increase in or reduction to plan expense to record the impact of the SARs outstanding. No options or SARs under this plan were granted in 2001.

The Company has a 2000 Stock Option and Appreciation Rights Plan (the "2000 Plan"). This plan reserves 300,000 shares of the Company's unissued shares for option and SAR grants. This plan is similar to the 2001 Plan and expires in 2010.

	2000 PLAN		
	Number of Shares	Price Per Share	
Outstanding, 12/31/00	0	-	
Granted	248,800	$ 3.00 -	$ 6.07
Outstanding, 12/30/01	248,800	$ 3.00 -	$ 6.07
Exercisable, 12/30/01	167,525	$ 3.00 -	$ 6.07

Under the 2000 Plan, the weighted average price for options outstanding and exercisable was $5.01 and $4.80, respectively. The weighted average life

for options outstanding and exercisable was 8.9 and 8.8 years, respectively.

The Company has a 1999 Stock Option and Appreciation Rights Plan ("1999 Plan") and a 1998 Stock Option and Appreciation Rights Plan ("1998 Plan"). The 1999 Plan reserves 300,000 shares and the 1998 Plan reserves 292,500 shares of the Company's unissued shares for option and SAR grants. Each plan is similar to the 2001 Plan. The 1999 Plan expires in 2010 and the 1998 Plan expires in 2008. There are no SARs outstanding in either plan.

ESSEX CORPORATION
NOTES TO FINANCIAL STATEMENTS
FOR THE FISCAL YEARS ENDED DECEMBER 30, 2001 AND DECEMBER 31, 2000

	1999 PLAN		1998 PLAN	
	Number of Shares	Price Per Share	Number of Shares	Price Per Share
Outstanding, 12/26/99	0		132,500	$ 1.00
Granted	110,000	$ 2.04 - $ 2.40	166,700	$ 1.69 - $ 2.40
Exercised	0		(2,500)	$ 1.00
Outstanding, 12/31/00	110,000	$ 2.04 - $ 2.40	296,700	$ 1.00 - $ 2.40
Granted	190,000	$ 3.00 - $ 3.96	500	$ 6.07
Exercised	0		(5,000)	$ 1.00
Outstanding, 12/30/01	300,000	$ 2.04 - $ 3.96	292,200	$ 1.00 - $ 6.07
Exercisable, 12/30/01	300,000	$ 2.04 - $ 3.96	292,200	$ 1.00 - $ 6.07

Under the 1999 Plan, the weighted average price for options outstanding and exercisable was $3.27. The weighted average life for options outstanding and exercisable was 8.7 years. Under the 1998 Plan, the weighted average price for options outstanding and exercisable was $1.58. The weighted average life for options outstanding and exercisable was 8 years.

The Company has a 1996 Stock Option and Appreciation Rights Plan ("1996 Plan") which reserves 261,818 shares of the Company's unissued shares for option and SAR grants. This plan expires in 2006. This plan is similar to the plans above. There are no SARs outstanding.

	NUMBER OF SHARES	PRICE PER SHARE
Outstanding, 12/26/99	288,450	$ 1.00 - $ 3.00
Granted	19,700	$ 1.69 - $ 2.04
Exercised	(10,000)	$ 1.00
Canceled	(10,300)	$ 1.00

Outstanding, 12/31/00	287,850	$ 1.00 - $ 3.00
Granted	2,000	$ 3.96
Exercised	(28,182)	$ 1.00 - $ 3.00
Outstanding, 12/30/01	261,668	$ 1.00 - $ 3.96
Exercisable, 12/30/01	261,668	$ 1.00 - $ 3.96

The weighted average price for options outstanding and exercisable was $1.41. The weighted average life for options outstanding and exercisable was 5 years.

An earlier Option and Stock Appreciation Rights Plan expired in 1997. Outstanding ISO or NSO options previously granted are exercisable through January 30, 2007. The activity in this plan for the last two years is as follows.

	NUMBER OF SHARES	PRICE PER SHARE
Outstanding, 12/26/99	553,150	$ 2.94 - $ 3.00
Canceled/Expired	(291,000)	$ 2.94 - $ 3.00
Outstanding, 12/31/00	262,150	$ 3.00
Exercised	(16,000)	$ 3.00
Outstanding, 12/30/01	246,150	$ 3.00
Exercisable, 12/30/01	246,150	$ 3.00

ESSEX CORPORATION
NOTES TO FINANCIAL STATEMENTS
FOR THE FISCAL YEARS ENDED DECEMBER 30, 2001 AND DECEMBER 31, 2000

The weighted average price for options outstanding and exercisable was $3.00. The weighted average life for options outstanding and exercisable was 2.7 years. Since this Plan expired in 1997, there are no shares available for future grants. There are no SARs outstanding.

The following table summarizes information about all plan stock options outstanding at December 30, 2001:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Shares #	Weighted-Average Remaining Contractual Life (Years)	Weighted-Average Exercise Price ($)	Shares #	Weighted-Average Exercise Price ($)
$ 1.00 - $ 1.69	373,068	6.5	1.16	373,068	1.16
$ 2.04 - $ 2.40	254,300	7.7	2.07	254,300	2.07

$ 3.00 - $ 3.96	598,650	6.0	3.69	572,950	3.69
$ 6.07	122,800	9.4	6.07	67,225	6.07
	1,348,818	6.8	2.97	1,267,543	2.76

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 2001 or 2000. As of December 30, 2001, 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.

In 2001 and 2000, respectively, the Company issued non-qualified options for 85,000 and 100,000 shares directly to its President and 40,000 and 61,500 to its Chief Financial Officer/Treasurer. Also in 2001, 45,000 shares were issued to another employee of the Company. The exercise price is 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:

	As Reported	Pro Forma

Year Ended	Net Loss Attributable to Common Stockholders	Per Share	Net Loss Attributable to Common Stockholders	Per Share
2001	$ (4,319,199)	$ (0.67)	$ (5,544,173)	$ (0.85)
2000	$ (2,441,416)	$ (0.52)	$ (2,909,650)	$ (0.62)

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

	2001	2000
Dividend yield	0.00%	0.00%
Volatility	84.85%	203.40%
Weighted average risk free interest rate	5.18%	6.05%
Weighted average expected lives of grants	9.6 years	10 years

The weighted average grant date fair value of the options issued in 2001 and 2000 was approximately $3.81 and $1.98, respectively.

10. 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. Each Series B share must be converted into 4 shares of common stock before September 12, 2002. The Series B has 51% voting rights, subject to certain terms and conditions, on all stockholder matters. No Series A 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 have a term of 5 years 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 4 million shares of common stock in connection with the convertible preferred stock and the possible exercise of the related common stock warrants.

In accordance with Emerging Issues Task Force Issue No. 98-5 "Accounting for Convertible Securities with Beneficial Conversion Features or Contingently Adjustable Conversion Ratios", the Company has imputed and recorded 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.

11. SUBSEQUENT EVENT

In March 2002, the Company amended existing private placement agreements for its common stock with its Investor Group or their affiliates. The agreements were increased from $500,000 to $1.5 million, of which $250,000 was received in December 2001 and $500,000 was received in the first quarter of 2002. The remaining $750,000 is subject to a call by the Company on an as needed basis during 2002. These agreements provide for the shares of common stock to be issued at an initial price per share of $6.50, subject to effective downward price adjustment, but not less than $3 per share, should additional private placements be done with other institutional investors during 2002 at a lower price per share.

CONSENT OF INDEPENDENT AUDITORS

We hereby consent to the incorporation of our report dated February 22, 2002, 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 27, 2002