IMAGE SENSING SYSTEMS INC Form 10KSB March 30, 2004

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-KSB

[X] Annual Report Pursuant to Section 13 o	or 15(d) of the Securities Exchange Act of 1934
For the fiscal year ende	<u> </u>
1 of the fiscal year char	51, 2003
[_] Transition Report Under Section 13 or	15(d) of the Securities Exchange Act of 1934
For the transition period from	to
Commission file	number <u>0-26056</u>
Image Sensing Systems, Inc. (Name of small business issuer in its charter) Minnesota 41-1519168 State or other jurisdiction of incorporation or organization 500 Spruce Tree Centre 1600 University Ave. W. St. Paul, MN 55104 Address of principal executive offices, including zip code (Name of small business issuer in its charter) IRS Employer Identification No. (651) 603-7700	
(Name of small busines	ss issuer in its charter)
Minnesota	41-1519168
-	IRS Employer Identification No.
1600 University Ave. W.	(651) 603-7700
	Issuer s telephone number
Securities registered under Securities	tion 12(b) of the Exchange act:
<u>No</u>	<u>one</u>
Securities registered under Sect	tion 12(g) of the Exchange Act:
Common Stock Title o	· =
Check whether the issuer (1) filed all reports required to be filed by for such shorter period that the registrant was required to file such report 90 days. [X] Yes [_] No	Section 13 or 15(d) of the Exchange Act during the past 12 months (o s), and (2) has been subject to such filing requirements for the past
Check if there is no disclosure of delinquent filers in response to Ite contained, to the best of the registrant s knowledge, in definitive proxy of Form 10-KSB or any amendment to this Form-10-KSB. [X]	
The registrant s revenues for the fiscal year ended December 31, 20	003 totaled \$9,259,000.

Based on the closing price at March 12, 2004, the aggregate market value of the voting and non-voting stock held by nonaffiliates of the registrant was \$18,926,083.

The number of shares outstanding of the registrant s \$.01 par value common stock, as of March 12, 2004, was 3,293,677 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of our proxy statement for our May 19, 2004 annual meeting of shareholders, which will be filed on or prior to April 29, 2004, are incorporated by reference into Part III of this Form 10-KSB.

Transitional Small Business Issuer Format: [_] Yes [X] No

PART I

Item 1. Description of Business

Image Sensing Systems, Inc. (referred to in this report as we, us, our and the Company) develops and markets video image processing products for use in traffic applications such as intersection control, freeway and tunnel traffic management and traffic data collection. We use a video image processing technology, also known as machine vision, which captures video images and analyzes the captured images through the use of sophisticated algorithms and computer software resident on special purpose hardware. Machine vision technology uses video cameras to emulate the function of the human eye and is used in a variety of applications such as industrial quality control, manufacturing automation, health care, robotic guidance and defense. We use a proprietary version of the machine vision technology implemented on commercially available computer hardware and video cameras to create the company s core family of products, the Autoscope Wide Area Video Vehicle Detection Systems.

The Autoscope system converts video images of a traffic scene into traffic information and data that may be transmitted to local or remote locations for real-time traffic management and control. The Autoscope system is modular and expandable and has a variety of applications in intersection control, freeway and tunnel traffic management and traffic data collection. The system can also be used by traffic managers for research and other applications, such as transportation security, and ultimately can help control traffic flow, reduce travel time, traffic accidents, delays, congestion, air pollution and fuel consumption and can improve roadway planning and cost efficiencies in traffic management and control. Products are sold globally to city, county, state, federal and private transportation professionals.

We have strategic partnership agreements with several traffic control companies in the U.S. and abroad for the manufacturing and distribution of our products. We manufacture the Autoscope family of products through an agreement with Econolite Control Products Inc. and Wireless Technology Inc. We sell the Autoscope system in North America and Latin America through a long-term agreement with Econolite. In Europe we retain several representatives to sell the Autoscope system through a network of distributors. In Asia, we sell to distributors through our wholly-owned subsidiary, Flow Traffic Ltd.

History

We were incorporated in the state of Minnesota in December 1984 and began operations by pioneering the commercial application of wide area video vehicle detection for traffic management. The technology underlying the Autoscope system was initially developed by the Company's founder, Dr. Panos Michalopoulos, a professor at the University of Minnesota. The technology was further developed at the University of Minnesota with the involvement of Dr. Michalopoulos and, in 1989, the University of Minnesota was awarded a patent for that technology. In 1991, the University of Minnesota awarded us exclusive license of the Autoscope technology. In 1991 we also granted a sub-license to Econolite Control Products, Inc., a leading manufacturer and seller of traffic control products in North America, to manufacture and distribute the licensed technology. In 1995, we raised \$3.9 million in a public offering of 990,000 shares of common stock. Some of the proceeds of the public offering were used to advance the technology of our products and to expand our distribution network to Europe and Asia. In 1999, we acquired sixty percent ownership of Flow Traffic Ltd., a distributor of traffic products in Asia, located in Hong Kong. In 2002, we acquired the remaining forty percent ownership of Flow Traffic. Between 1987 and 2003 we have developed seven generations of Autoscope, with the Autoscope Rack Vision introduced in 2003.

Industry Background

Automated vehicle detection for traffic management and control has traditionally been performed with inductive wire loops buried in the pavement. Typically, the road surfaces are saw-cut with a specific shaped cut; specified metallic wires are bent into the same shape as the saw-cut and placed into the saw-cut with a sealer material subsequently covering up the saw-cut opening. However, embedded loop detectors are costly to install and difficult to maintain, are destructive to road surfaces and are not capable of wide-area vehicle detection without the use of many loops. The Autoscope system is easier to install and maintain than the embedded loop detectors, is non-destructive to road surfaces and is capable of wide-area vehicle detection with a single camera, thus enabling one camera to do the work of many loops. The Autoscope system s range of applications and its ability to support new

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applications for advanced technology solutions to traffic management problems make it superior to the loop detectors.

Strategy

Our strategy is to remain the global leader in machine vision technology for advanced traffic management while continuing to improve profitability and provide value for our customers. To achieve our objectives, we will continue to develop new hardware and software products and applications for use by traffic managers worldwide in order that they may control traffic flow, improve traffic safety and roadway planning, reduce travel time, traffic accidents, delays, congestion, air pollution and fuel consumption and increase cost efficiencies in traffic management and control. We will continue efforts to (i) expand and improve our distribution network in other parts of Europe and Asia that can grow our market base and (ii) to seek out partners outside of the traffic management industry that may use our proprietary machine vision technology or partners within the industry that bring synergistic technologies to our current products.

The Autoscope System

In the Autoscope system a camera is used to view the roadway traffic scene. The camera view is input to a special purpose computer called the Autoscope machine vision processor (MVP). The Autoscope system permits users to define and configure detection zones on a computer monitor displaying the traffic view as seen by each camera, as opposed to saw-cutting and placing detector loops in the pavement. The computer monitor displays the camera s field-of-view and, using software provided with the Autoscope system, the user defines the detection zones. Configuring the detection zones allows the user to specify where and what type of traffic data needs to be collected. Numerous detection zones can be programmed per camera. These detection zones are then stored in the memory of the Autoscope MVP, which analyzes the camera view in real-time and extracts the required traffic data. A single Autoscope unit can be configured to include numerous detection zones, allowing a traffic engineer to replace a like number of in-pavement loops.

The Autoscope system is capable of measuring traffic data such as: presence detection, volume, speed, time occupancy (percent of time the detection zone is occupied), average headway (time interval between vehicles), flow rate (vehicles per hour per lane), vehicle length and more. The Autoscope system output can be routed to the intersection signal controller which actuates the traffic light. The traffic data may also be transmitted to another host computer via public dial-up telephone lines, private twisted-pair copper wires, fiber optic network or various other wireless communications media. Typically, the data is transmitted to a central computer at a traffic management center (TMC). If desired, video can also be transmitted to the same destination as the data. Data from the Autoscope system can be processed in real time to manage traffic or stored for later analysis for traffic planning purposes.

Current Products

The original Autoscope 2002 system was developed in 1991 and was based on an industrial computer. Since that time, we have developed a number of Autoscope products, which currently include: Autoscope Solo Pro, Autoscope Solo® Pro NC, Autoscope 2020 Autoscope RackVision and Autoscope Image Sensor Camera (AIS Camera).

Autoscope Solo Pro is an integrated color zoom camera and machine vision processor contained in one compact housing unit. The Autoscope Solo Pro NC, introduced in 2002, and Autoscope 2020 and Autoscope RackVision, introduced in 2003, were developed to allow customers to use standard video cameras with Autoscope technology. The AIS Camera is our stand-alone specialized camera that promotes optimal use of Autoscope Solo Pro NC, Autoscope 2020 and Autoscope RackVision. Autoscope Solo Pro NC and Autoscope RackVision were introduced primarily in response to perceived market needs in Europe and Asia. All our products are designed to meet Federal Communications Commission and European regulatory standards.

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Product Development

We are continually working on product enhancement and new product development that will reduce cost, improve performance, make the product more user-friendly or provide other beneficial features to the user. Product development efforts in 2003 were as follows: <u>Autoscope RackVision</u> This product is a single-camera unit that delivers the same high-quality standard of vehicle detection and data collection available in the Autoscope Solo Pro vehicle detection system, but allows customers to use standard video cameras. <u>Autoscope 2020</u> This a 4-camera machine vision processor that succeeds the earlier 4-camera model, Autoscope 2004; as with Autoscope RackVision, Autoscope 2020 delivers the same high-quality standard of vehicle detection available in the Autoscope Solo Pro vehicle detection system; <u>Autoscope Wizard</u> This software product is a tool used to automate setup and configuration for intersection detection applications, which we believe will encourage further widespread deployment of the Autoscope system. <u>TLS Protocol</u> Autoscope software now offers the TLS communications protocol, which is a standard communications protocol for the German highway market and is also used in Austria and Switzerland. Transportation authorities in these countries will now find it easier to integrate the Autoscope system with their local transportation systems. Research and development expense was \$730,000 and \$602,000 in 2003 and 2002, respectively.

Manufacturing

We manufacture the Autoscope family of products through agreements with Econolite Control Products Inc. (Econolite) and Wireless Technology Inc. (WTI). In 1991, we appointed Econolite as our licensee to make and have made the Autoscope system and related technology and to sell the products in North America and Latin America (see Sales and Marketing below). In 2002, we granted WTI a non-transferable license to use any of our intellectual property as needed to manufacture Autoscope Solo Pro and AIS camera products for our and Econolite s use. WTI has no right, title or interest in or to our intellectual property other than the foregoing limited license, nor does WTI have the right or authority to sublicense our intellectual property.

Econolite provides a two-year warranty on the current Autoscope system and must provide all service required under this warranty. WTI provides a two-year warranty to us on the Autoscope Solo Pro and AIS camera products it manufactures.

Sales and Marketing

We market and sell our products to global customers. We have supplied Autoscope systems for over 25,000 cameras worldwide in more than 50 countries. Together, we and our partners offer a combination of high-performance video detection technology and experienced local support.

Our customers primarily consist of federal, state, city and county departments of transportation, road commissions and port, highway, tunnel and other transportation authorities. The decision-makers within these governmental entities typically are traffic planners and government engineers, who in turn often rely on consulting firms that perform planning and feasibility studies for the governmental entities. Our products sometimes are sold directly to system integrators or other suppliers of systems and services who are operating under subcontracts in connection with major road construction contracts.

We have granted Econolite an exclusive right to market and distribute the Autoscope system and related technology which they manufacture (see Manufacturing above) in North America and Latin America. Econolite provides the marketing and technical support needed for its sales in these territories. Econolite pays us a royalty on the revenue derived from their sales of the Autoscope system. Royalty income from Econolite comprised 64% and 62% of our revenue in 2003 and 2002, respectively. We coordinate the marketing of Autoscope products with Econolite for North America and Latin America and provide second tier technical support.

We may terminate our agreement with Econolite if a minimum annual sales level is not met. The initial term of the agreement was 15 years, ending in 2006, and was automatically renewable thereafter for additional one-year periods unless terminated by either party upon 60 days notice prior to the end of the initial term or any

extension term. In 2001, we signed a five-year extension of our agreement with Econolite, thereby extending its term to 2011.

We have established a network of distributors covering countries in Europe and the Middle East. The distributors are managed by our Managing Director of Europe. Technical support to these distributors is provided by a resident expert residing in Europe, with second tier support provided from our principal executive office in St. Paul, Minnesota. In 2003, we entered into two new distribution agreements under which our products will be marketed and distributed throughout Germany, Denmark, Finland and Sweden.

We market our products to distributors in Asia through our wholly-owned Asian subsidiary, Flow Traffic Ltd. Flow Traffic provides all the needed sales and marketing effort as well as local technical support to the customers in Asia, backed up by second tier technical support from our principal executive office. Flow Traffic Ltd. also sells other traffic management products and systems in Asia.

Competition

We are aware of several companies that develop, manufacture and sell traffic management devices using machine vision technology or other advanced technology. Among the companies that provide direct competition to the Autoscope system are Trafficon N.V., Quixote Corporation, Nestor, Inc., Iteris, Inc. and Citilog. They all have working installations of their machine vision systems in the United States and other parts of the world. To our knowledge, however, these companies do not have as many installations as we have. We are aware that these and other companies will continue to develop technologies for use in traffic management and surveillance. One or more of these technologies could in the future provide increased competition for Autoscope.

Other potential competitors we are aware of include Siemens AG, Cognex Corp., NEC and 3M, which are companies that have machine vision capabilities and have substantially more financial, technological, marketing, personnel and research and development resources than we have. We estimate that more than 90% of the detector systems currently in use in the United States use competing embedded loop detectors. Other technologies that compete with video and loops for traffic sensing are radar, laser, infrared and acoustics.

Suppliers

The hardware components incorporated into Autoscope products are standard computer hardware products that are available from multiple sources. To date, our current vendors of these components have met our quality and performance expectations. However, we believe alternative component vendors are available should the necessity arise. Nevertheless, shortages of parts or the need to change vendors could hinder Econolite s and WTI s ability to manufacture our products, which could, in turn, decrease our revenues and harm our business.

Backlog

Our backlog of unfulfilled firm orders from distributors was not material as of December 31, 2003 or 2002. Terms of agreements between distributors of our products and government contractors and other customers generally provide for cancellation or rescheduling of delivery in the case of backlogs. A backlog in our orders as of a particular date may not be a relevant factor in predicting our future revenue.

Intellectual Property

We entered into a license agreement with the University of Minnesota in 1991. Under the agreement, we have been granted an exclusive, worldwide license, with a right to grant sublicenses, to make, have made, use, sell and lease any product that incorporates knowledge, information, know-how, software and devices, whether patentable or not, in the possession of the University of Minnesota and related to a video vehicle detection system developed by the University of Minnesota, solely or jointly with us, including certain improvements made to this technology. In exchange for our license, we pay a royalty to the University of Minnesota which is based on net sales of licensed products and sublicensing revenue. The license agreement terminates upon the termination of the patent covering the technology. The patent terminates on July 11, 2006. The University of Minnesota may terminate the

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license agreement if the royalties are not paid, if there is a material breach of the agreement by us, or if we fail to use our best efforts to effect commercial sales of the licensed products. We have agreed to indemnify the University of Minnesota against all liabilities or losses arising from

(i) the manufacture, use, lease or sale of a licensed product by us or a sublicensee of us, (ii) a third party s use of a licensed product purchased from us or a sublicensee of us, and (iii) a third party manufacture of a licensed product at our request.

We have sublicensed some of our rights in the Autoscope technology to Econolite pursuant to our manufacturing, distribution and technology agreement with Econolite. (See Manufacturing above.)

Our technology is dependent upon the knowledge, experience and skills of our key scientific and technical personnel. To protect our rights to our proprietary know-how and technology, we require all employees and consultants to execute confidentiality agreements that prohibit the disclosure of confidential information to any third parties. These agreements also require disclosure and assignment to us of any discoveries and inventions made by employees and consultants while they are devoted to our business activities.

We intend to actively protect our intellectual property assets and will actively seek, when appropriate, protection for owned or licensed products and proprietary information by means of United States and foreign patents, trademarks and contractual arrangements. In addition, we rely upon trade secrets and contractual arrangements to protect some of our proprietary information. We have registered trademark rights to Autoscope and Autoscope Solo.

Employees

As of March 6, 2004, we had 32 employees, 31 of whom were full-time and one of whom was part-time. Nine of these employees are employed by Flow Traffic Ltd., our wholly-owned subsidiary in Hong Kong. None of our employees is represented by a union. We believe our employee relations are good.

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CAUTIONARY STATEMENT

This Annual Report on Form 10-KSB contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange of 1934, as amended. Forward-looking statements represent our expectations or beliefs concerning future events and can be identified by the use of forward-looking words such as believes, may, will, should, intends, estimates, or anticipates or other comparable terminology. Forward-looking statements are subject to risks and uncertainties that may cause our actual results to differ materially from the results discussed in the forward-looking statements. Some factors that might cause these differences include the factors listed below. Although we have attempted to list these factors comprehensively, we wish to caution investors that other factors may prove to be important in the future and may affect our operating results. New factors may emerge from time to time, and it is not possible to predict all of these factors, nor can we assess the affect each factor or combination of factors may have on our business.

We further caution you not to unduly rely on any forward-looking statements, because they reflect our views only as of the date the statements were made. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

RISK FACTORS

We are dependent on a single product for most of our revenue, and if we do not increase the market for our product, we will be unable to be profitable and our business will be harmed.

More than 80% of our revenue since inception has been generated from sales of, or royalties from the sales of, the Autoscope® system vehicle detection system, and the Autoscope system currently is our only product sold commercially. The application of machine vision technology to traffic management is a relatively new concept in the traffic management industry. Our financial success and prospects for growth will depend in large part on the continued development of the market for advanced technology solutions for traffic management and the acceptance of the Autoscope system as a reliable, cost-effective alternative to traditional vehicle detection systems. We cannot assure you that we will be able to utilize our technology profitably in other products or markets. If the Autoscope system does not continue to gain greater market acceptance and if we are unable to increase awareness of our product and expand our customer base, sales of our products will suffer and we may be unable to sustain our business.

If governmental entities elect not to use our product due to budgetary constraints, project delays or other reasons, our revenues may fluctuate severely or be substantially diminished.

We sell the Autoscope system primarily to governmental entities for use in large traffic control projects using advanced traffic control technologies. Unless and until broader market acceptance of the Autoscope system is achieved, we will continue to rely substantially on revenues and royalties from sales of the Autoscope system to governmental entities. It often takes considerable time before governmental traffic control projects are developed to the point where a purchase of the Autoscope system is made, and a purchase of our product also may be subject to a time-consuming approval process. Additionally, governmental budgets and plans may change without warning. Substantial delays in purchase decisions by governmental entities, or governmental budgetary constraints, could cause our revenues and income to drop substantially or to fluctuate significantly between fiscal periods.

If our primary distributor fails to pay royalties to us in a timely manner or at all, our financial results will suffer.

We have entered into an agreement with Econolite Control Products, Inc., pursuant to which Econolite is the exclusive distributor of the Autoscope system in North America and Latin America. In exchange for its right to distribute our product, Econolite pays us royalties for sales of the Autoscope system. Since 1991, more than 60% of our revenue has consisted of royalties resulting from sales made by Econolite. A failure by Econolite to make royalty payments to us in a timely manner or at all will significantly reduce our revenues and harm our financial condition.

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Our dependence on third parties for manufacturing and marketing our product may prevent us from meeting customers needs in a timely manner.

We do not have, and do not intend to develop in the near future, the capability to manufacture our products. We have entered into agreements with Econolite Control Products, Inc. and Wireless Technology Inc. (WTI) to manufacture the Autoscope system and related technology. If Econolite and WTI are unable to manufacture our products in the future, we may be unable to identify other manufacturers able to meet product and quality demands in a timely manner or at all. Our inability to find suitable manufacturers for our products could result in delays or reductions in product shipments, which in turn may harm our business reputation and results of operations. In addition, we have granted Econolite the exclusive right to market the Autoscope system and related products in North America and Latin America. Consequently, our revenues depend to a significant extent on Econolite s marketing efforts. Econolite s inability to effectively market the Autoscope system, or the disruption or termination of that relationship, could result in reduced revenues and market share for our products.

Our dependence on single-source suppliers may prevent us from meeting customers needs in a timely manner.

All of the component hardware incorporated into the Autoscope system are standard computer hardware products that are available from multiple sources. If current vendors of components for the Autoscope system fail to meet quality and performance expectations, and if alternative component vendors are unavailable, shortages of parts or the need to change vendors could limit our ability to manufacture the Autoscope system, which would harm our business reputation and financial results.

We may face increased competition if we fail to adequately protect our intellectual property rights, and efforts to protect our intellectual property rights may result in costly litigation.

Our success depends in large measure on the protection of our proprietary technology rights. We rely on trade secret, copyright and trademark laws, patents and confidentiality agreements with employees and third parties, all of which offer only limited protection. We cannot assure you that the scope of any current or future patents relating to our products will exclude competitors or provide competitive advantages to us, or that the current patent on the technology underlying the Autoscope system will be held valid if challenged. We also cannot assure you that others have not developed or will not develop similar products, duplicate any of our products or design around our patents. The reverse engineering, unauthorized copying or other misappropriation of our proprietary technology could enable third parties to benefit from our technology without paying us for it. This could adversely affect our business and financial results. Litigation may be necessary in the future to enforce our intellectual property rights, to protect our trade secrets or to determine the validity and scope of the proprietary rights of others. Litigation could result in substantial costs and the diversion of management resources, either of which could harm our business.

We have not applied for patent protection in all foreign countries in which we may market and sell the Autoscope system. Consequently, our proprietary rights in the technology underlying the Autoscope system will be protected only to the extent that trade secret, copyright or other non-patent protection is available in other countries and to the extent we are able to enforce our rights in those countries. The laws of other countries in which we market our products may afford little or no effective protection of our proprietary technology.

The U.S. and foreign patents for certain aspects of the underlying technology for the Autoscope system are owned by the University of Minnesota. We have entered into a license agreement with the University of Minnesota, pursuant to which we have been granted an exclusive, worldwide license, with a right to grant sub-licenses, to make, have made, use, sell and lease products incorporating the Autoscope technology, and we pay royalties to the University for this license. The University of Minnesota may terminate the license only in limited circumstances, but any termination would prevent us from developing and selling our products and therefore would severely disrupt our business operations.

Increased competition may make it difficult for us to acquire and retain customers, and if we are unsuccessful in developing new applications and product enhancements, our products may become obsolete.

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Competition in the area of advanced traffic management and surveillance is growing. Some of the companies that may compete with us in the business of developing and implementing traffic control systems have substantially more financial, technological, marketing, personnel and research and development resources than we have. Therefore, they may be able to respond more quickly than we can to new or changing opportunities, technologies, standards or customer requirements. If we are unable to compete successfully with these companies, the market share for our products will decrease, and competitive pressures may seriously harm our business.

Additionally, the market for adaptive technology for vehicle detection is continuously seeking more advanced technological solutions to traffic management and control problems. Technologies such as embedded loop detectors, pressure plates, pneumatic tubes, radars, lasers, magnetometers, acoustics, and microwaves that have been used as traffic sensing devices in the past will be enhanced for use in the traffic management industry, and new technologies may be developed. We are aware of several companies that are developing traffic management devices using machine vision technology or other advanced technology. We expect that we increasingly will face competitive product developments, applications and enhancements. New technologies or applications in traffic control systems may provide our customers with alternatives to the Autoscope system and could render our products or technologies noncompetitive or obsolete. If we are unable to increase the number of our applications and develop and commercialize product enhancements and applications in a timely manner that respond to changing technology and satisfy the needs of our customers, our business and financial results will suffer. We cannot be certain that we will be successful in developing and marketing product enhancements or new products on a timely or cost-effective basis or that these products, if developed, will achieve market acceptance.

Our inability to manage growth effectively could seriously harm our business.

Growth and expansion of our business could significantly strain our capital resources as well as the time and abilities of our management personnel. Our ability to manage growth effectively will require continued improvement of our operational, financial and management systems, and successful training, motivation and management of our employees. If we are unable to manage growth successfully, our business and operating results will suffer.

The significant control over shareholder voting matters that may be exercised by our directors and officers may deprive other shareholders of the ability to influence corporate actions.

As of March 18, 2004, our directors and officers owned beneficially approximately 36 % of our outstanding common stock. Accordingly, these shareholders may be able to influence the outcome of shareholder votes, including votes concerning the election of directors and the outcome of corporate actions requiring shareholder approval, such as mergers and acquisitions, regardless of how other shareholders may vote. This concentration of voting control among our officers and directors may result in the deferral, prevention or significant delay in a change in management or change in control of Image Sensing Systems and may constrain the voting or other rights of other holders of our common stock.

Our business operations will be severely disrupted if we lose key personnel or if we fail to attract and retain qualified personnel.

Our technology is dependent upon the knowledge, experience, and skills of key scientific and technical personnel. Additionally, our ability to continue technological developments and to market our products, and thereby develop a competitive edge in the marketplace, depends in large part on our ability to attract and retain qualified scientific and technical personnel. Competition for qualified personnel is intense, and we cannot assure you that we will be able to attract and retain the individuals we need. The loss of key personnel, or our inability to hire and retain qualified personnel, will harm our business.

Our stock price is volatile.

Our common stock is thinly traded with approximately 2.1 million shares held by nonaffiliates. Based on this fact, the trading history of our common stock and the nature of the market for publicly traded securities of companies in evolving high-tech industries, we believe there are several factors that have caused and are likely to

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continue to cause the market price of our common stock to fluctuate substantially. The fluctuations may occur on a day-to-day basis or over a longer period of time. Factors that may cause fluctuations in our stock price include: announcements of large orders obtained by us or our competitors, substantial cutbacks in government funding of highway projects or of the potential availability of alternative technologies for use in traffic control and safety, quarterly fluctuation in our financial results or the financial results or our competitors and consolidation among our competitors.

Conditions beyond our control could seriously harm our business.

Terrorists attacks against Econolite or WTI would adversely effect manufacture of our Autoscope products and delay the delivery of sales orders. War and the SARS or similar epidemic could affect our ability to travel and sell products internationally and to deliver product in a timely manner. Economic recession or depression could also affect government entities and their ability to expend funds for transportation improvements. These and other factors beyond our control could seriously reduce our revenues and earnings.

Item 2. Description of Property

We currently lease approximately 7,600 square feet of office space in St. Paul, Minnesota, pursuant to an operating lease that expires in May 2005. The lease provides for monthly payments of \$11,000, and we are responsible for our proportionate share of increases in operating expenses that exceed a base rent factor. Flow Traffic Ltd. leases 930 square feet of office space in Hong Kong for \$3,000 per month, pursuant to an operating lease that expires in April 2006. The agreement may be cancelled by Flow Traffic at any time between March 17 and April 16, 2004.

Rent expense for both locations amounted to \$182,000 in 2003 and \$173,000 in 2002. At December 31, 2003, future minimum annual lease payments payable through 2006 total \$307,000.

We believe that our current space is adequate in the United States and do not intend to lease additional space in the near-future. If we continue to grow our business as planned in Asia and Europe, we may need to lease additional office space and storage facilities in 2004.

We do not otherwise invest in real estate in any manner.

Item 3. Legal Proceedings

During 2003, we were not involved in any legal proceedings, and we currently are not a party to any legal proceedings.

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

There were no matters submitted to a vote of security holders during the fourth quarter of the fiscal year covered by this report.

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PART II

Item 5. Market for Common Equity and Related Shareholder Matters

Market Information

Our common stock is traded on the NASDAQ Small Cap Market under the symbol ISNS. The quarterly high and low sales prices for our common stock for our last two fiscal years are set forth below.

	FY 2	2003	FY 2002			
Quarter	High	Low	High	Low		
First	\$ 5.15	\$ 3.49	\$ 2.49	\$ 1.60		
Second	5.51	3.41	2.00	1.26		
Third	9.04	4.47	4.10	.60		
Fourth	11.50	7.48	5.99	2.92		

Shareholders

As of March 21, 2004, there were 34 holders of record of our common stock and approximately 1,067 beneficial holders of our common stock.

Dividends

We have never declared or paid a cash dividend on our common stock. We currently intend to retain earnings for use in the operation and expansion of our business, and, consequently, we do not anticipate paying any dividends in the foreseeable future.

Item 6. Management s Discussion and Analysis of Financial Condition and Results of Operations

Overview:

We have developed proprietary machine vision technology that converts real world information into digital electronic signals for processing by computer and have applied it to traffic management problems. Our technology uses standard video and computer equipment, combined with proprietary technology, including complex detection algorithms, computer software, special purpose hardware, and a Microsoft Windows®-based graphical user interface that enables standard video cameras to work with the Autoscope system.

Autoscope systems are sold to distributors and end users of traffic management products in North America and Latin America by Econolite Control Products, Inc., (Econolite), our distribution partner in those locations. We also sell Autoscope products to distributors and end users in Europe and Asia through our exclusive representative agents in Europe and our Hong Kong subsidiary, respectively. The Autoscope system is used by traffic managers primarily to improve the flow of vehicle traffic and to enhance safety at intersections, main thoroughfares, freeways and tunnels.

The majority of our revenue is derived from royalties received from Econolite, with a secondary source of revenue produced from direct product sales in Europe and Asia. End users of the Autoscope system throughout the world are generally funded by government agencies responsible for traffic management and/or traffic law enforcement.

Our success is primarily dependent upon (i) continued governmental funding of Intelligent Transportation Systems , such as machine vision for traffic control; (ii) our ability through Econolite and our sales representatives in Europe and Asia, to successfully market the Autoscope System to individual traffic managers and (iii) our ability to develop new machine vision products and applications that enhance the traffic manger s ability to cost effectively improve traffic flow and safety.

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Results of Operations

The following table sets forth, for the periods indicated, certain statements of income data as a percent of total revenue, gross profit on product sales and royalties as a percentage of product sales and royalties, respectively and year to year changes of items in the consolidated statement of income from 2002 to 2003:

		Year Ended December 31	
	2003	2002	Year % Change
Product sales	36.0%	36.9%	11.8%
Royalties	63.9	61.7	18.6
Consulting services	.1	1.4	(95.5)
Total revenue	100.0	100.0	14.5
Gross profit product sales	54.1	49.2	22.9
Gross profit royalties	95.3	94.6	19.4
Selling, marketing and product support	27.4	33.1	(5.3)
General administrative	13.3	13.6	12.3
Research and development	7.9	7.4	21.3
Restructuring costs		5.9	
Income from operations	31.8	16.6	120.0
Income taxes	9.0	2.2	380.5
Net income	23.1	14.7	79.1

Total revenue increased to \$9,259,000 in 2003 from \$8,085,000 in 2002, an increase of 14.5%. Product sales for 2003 increased to \$3,334,000, or 36.0% of revenue, from \$2,981,000, or 36.9% of revenue, in 2002. The 11.8% increase over 2002 was due to higher sales volume by both our wholly-owned subsidiary in Hong Kong and our representative in Europe, which was primarily attributable to continued acceptance of machine vision technology for traffic management in Asia and introduction of the Rack Vision product in Europe. Royalty income for 2003 increased to \$5,920,000, or 63.9% of revenue, from \$4,992,000, or 61.7% of revenue, in 2002. The 18.6% increase in royalty income in 2003 resulted primarily from increased sales volume of the Autoscope Solo Pro product by Econolite. Revenue from consulting services decreased to \$5,000, or .1% of revenue, in 2003 from \$112,000, or 1.4% of revenue, in 2002. Our last significant consulting contract was completed in January 2003, and we have no current prospects for future consulting contracts.

Total gross profit was \$7,449,000, or 80.5% of revenue, in 2003, compared to \$6,194,000, or 76.6% of revenue, in 2002. The increase in our total gross profit margin percentage was due to greater profit margins on new products introduced in 2003 and an increase in high margin royalty revenue from Econolite as a percent of total revenue. The gross profit on product sales for 2003 increased 22.9% to \$1,803,000 from \$1,467,000 in 2002, while gross profit margins increased to 54.1% of product sales in 2003 from 49.2% in 2002. We expect the revenue mix to change marginally in 2004 if we increase product sales in Asia and Europe faster than Econolite increases royalty-generating sales in North America and Latin America. In this case, our gross profit margins will decrease since the margin on royalty income (95.3%) is significantly greater than on product sales (54.1%). However, our objective is to be less reliant on royalty income from Econolite sales.

Selling, marketing and product support expenses were \$2,536,000, or 27.4% of revenue, in 2003, compared to \$2,678,000, or 33.1% of revenue, in 2002. The small decrease in total dollars expended resulted primarily from less engineering costs allocated to product support in 2003 and decreased spending for travel and other sales expense in the second and third quarters of 2003 due to restricted travel as a result of the SARS epidemic in Asia. We anticipate adding sales and product support personnel and increasing our marketing efforts in both Europe and Asia in 2004. As a result, we expect selling and marketing expenses to increase in real terms in 2004, but we do not expect these expenses to change appreciably as a percentage of revenue. General and administrative expenses were

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\$1,235,000, or 13.3% of revenue, in 2003, compared to \$1,100,000, or 13.6% of revenue, in 2002. The increase was due primarily to settlement of a purchase agreement related to Mobile Blockers, a business that was discontinued in 2002. Research and development expenses totaled \$730,000, or 7.9% of revenue, in 2003 compared to \$602,000, or 7.4% of revenue, in 2002. The increase resulted primarily from the allocation of more engineering time to new product development in 2003 than 2002. We expect research and development expenses to increase marginally in 2004 as we complete or advance the development of several new products.

Restructuring costs totaled \$474,000 in 2002 and represent severance pay for employees that resigned or were terminated in the first and second quarters of 2002.

Income taxes were \$836,000 or 9.0% of revenue in 2003, compared to \$174,000 or 2.2% of revenue in 2002. The increase in income taxes was due primarily to having more taxable income in 2003 and less benefit from utilization of tax loss and tax credit carryforwards than the previous year.

Net income was \$2,135,000 in 2003, compared to \$1,192,000 in 2002 due to the factors discussed above.

Liquidity and Capital Resources

At December 31, 2003, we had \$5,384,000 in cash and cash equivalents, compared to \$2,625,000 at December 31, 2002. We had working capital of \$6,105,000, and a ratio of current assets to current liabilities of 4.8 to 1 at December 31, 2003, compared to \$3,081,000 and 3.0 to 1, respectively, at the end of 2002.

Net cash provided by operating activities was \$3,014,000 in 2003, compared to \$1,996,000 in 2002. The increase was due primarily to increased profitability in 2003 compared to 2002 and more efficient use of working capital. The only significant use of cash in 2003 was final payment to former shareholders of our subsidiary, Flow Traffic Ltd.

We have a credit agreement that provides up to \$500,000 in short-term borrowings at 1.25% over the prime rate (effective rate of 5.25% at December 31, 2003). The agreement limits the amount of short-term borrowings to 65% of eligible receivables and is reduced by any outstanding letters of credit. Substantially all assets are pledged as collateral on the borrowings. The credit agreement further includes covenants that relate to certain financial statement ratios and restrictions. We had no outstanding borrowings under the credit agreement in 2003 or 2002.

We believe that cash and cash equivalents on hand at December 31, 2003, our \$500,000 revolving line of credit with Wells Fargo Bank Minnesota, N.A. and cash provided by operating activities will satisfy our projected working capital needs, investing activities and other cash requirements through 2004.

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements.

Critical Accounting Policies

Goodwill. Effective January 1, 2002, we adopted Statement of Financial Accounting Standards No. 142 (SFAS 142), Goodwill and Intangible Assets. SFAS 142 eliminates the amortization of goodwill and other intangible assets with indefinite lives and requires that the assets be tested for impairment annually or whenever an impairment indicator arises. Our recorded goodwill relates to our Flow Traffic subsidiary and is tested for impairment on December 31 of each year. The impairment test requires us to estimate the fair value of our subsidiary and then compare this fair value to the carrying value. If carrying value exceeds fair value, the excess is recorded as an impairment loss. We estimate the fair value by using the income approach, where fair value is dependent on the present value of future economic benefits to be derived from ownership of Flow Traffic. No impairment of goodwill was recorded as of December 31, 2003 and 2002.

Revenue recognition. Royalty income is recognized based upon a monthly royalty report provided to us by Econolite Control Products, Inc., (Econolite), a sublicensee that sells our product in North America and Latin

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America. This report is prepared by Econolite based on its sales of products we developed and is based on sales delivered and accepted by its customers. We recognize revenue from product sales at the time of delivery and acceptance, the selling price is fixed or determinable and collectibility is reasonably assured. Consulting fees are recorded as earned. We record provisions against sales revenue for estimated returns and allowances in the period when the related revenue is recorded based upon historical sales returns and changes in customer demands.

Income taxes. Income taxes are accounted for under the liability method. Deferred income taxes reflect the effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and amounts used for income tax purposes. Deferred tax assets are offset by a valuation allowance as deemed necessary based on our estimate of our future sources of taxable income and the expected timing of temporary difference reversals.

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Item 7. Financial Statements and Supplementary Data

IMAGE SENSING SYSTEMS, INC. CONSOLIDATED BALANCE SHEETS

	Decem	ber 31
	2003	2002
ASSETS		
Current assets:	* * 2 3 4 3 3 3	A - (
Cash and cash equivalents	\$ 5,384,000	\$ 2,625,000
Accounts receivable, net of allowance for returns and doubtful	1 835 000	1 417 000
accounts of \$98,000 (\$47,000 in 2002) Inventories	1,835,000 323,000	1,417,000 174,000
Prepaid expenses	100,000	123,000
Deferred income taxes	61,000	267,000
Total current assets	7,703,000	4,606,000
Property and equipment:		
Furniture and fixtures	187,000	188,000
Leasehold improvements	120,000	103,000
Equipment	892,000	1,353,000
	1,199,000	1,644,000
Accumulated depreciation	(1,073,000)	(1,477,000)
	126,000	167,000
Goodwill	1,050,000	1,050,000
Capitalized software development costs, net of accumulated	(- 0.000	
amortization of \$1,125,000 (\$867,000 in 2002)	679,000	937,000
Other assets	29,000	29,000
TOTAL ASSETS	\$ 9,587,000	\$ 6,789,000
LIABILITIES AND SHAREHOLDERS EQUITY		
Current liabilities:		
Accounts payable	\$ 579,000	\$ 425,000
Due to former shareholders of subsidiary	5(1,000	450,000
Accrued compensation	561,000	546,000
Income taxes payable	458,000	104,000
Total current liabilities	1,598,000	1,525,000
Deferred income taxes	229,000	141,000
Shareholders equity: Preferred stock, \$.01 par value:		
Authorized shares 5,000,000		
Issued and outstanding none		
Common stock, \$.01 par value:		
Authorized shares 20,000,000		
Issued and outstanding 3,288,177 (3,175,777 in 2002)	33,000	32,000
Additional paid-in capital	5,218,000	4,717,000
Retained earnings	2,509,000	374,000
Total shareholders equity	7,760,000	5,123,000

		 December 31		
TOTAL LIABILITIES AND SHAREHOLDERS	EQUITY	\$ 9,587,000	\$	6,789,000

See accompanying notes

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IMAGE SENSING SYSTEMS, INC. CONSOLIDATED STATEMENTS OF INCOME

	Year ended	December 31
	2003	2002
Revenue:		
Product sales	\$ 3,334,000	\$ 2,981,000
Royalties	5,920,000	4,992,000
Consulting services	5,000	112,000
	9,259,000	8,085,000
Cost of revenue:		
Product sales	1,531,000	1,514,000
Royalties	277,000	268,000
Consulting services	2,000	109,000
	1,810,000	1,891,000
Gross profit	7,449,000	6,194,000
Operating expenses:		
Selling, marketing and product support	2,536,000	2,678,000
General and administrative	1,235,000	1,100,000
Research and development	730,000	602,000
Restructuring costs		474,000
	4,501,000	4,854,000
Income from operations	2,948,000	1,340,000
Other income	23,000	26,000
Income before income taxes	2,971,000	1,366,000
Income taxes	836,000	174,000
Net income	\$ 2,135,000	\$ 1,192,000
Net income per share:		
Basic	\$ 0.66	\$ 0.38
Diluted	0.60	0.37

		Year ended December 31	
Weighted average number of c	common shares outstanding		
Basic		3,215,000	3,155,000
Diluted		3,598,000	3,252,000
	See accompanying notes		

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IMAGE SENSING SYSTEMS, INC. CONSOLIDATED STATEMENTS OF CASH FLOW

	Year ended I	December 31
	2003	2002
Operating activities:		
Net income	\$ 2,135,000	\$ 1,192,000
Adjustments to reconcile net income to net cash provided by operating		
activities:		
Depreciation	123,000	161,000
Amortization	258,000	258,000
Loss on disposal of property and equipment		49,000
Tax benefit from disqualifying disposition	87,000	63,000
Compensation expense for performance based stock option	138,000	
Deferred income taxes	294,000	
Changes in operating assets and liabilities:		
Receivables	(418,000)	172,000
Inventories	(149,000)	152,000
Prepaid expenses	23,000	8,000
Accounts payable	154,000	(308,000)
Accrued compensation	15,000	172,000
Income taxes payable	354,000	104,000
Deferred revenue		(27,000)
Net cash provided by operating activities	3,014,000	1,996,000

Investing activities:

	Year ended D	December 31
Acquisition of subsidiary	_	(614,000)
Purchases of property and equipment	(82,000)	(54,000)
Proceeds from sale of property and equipment		43,000
Net cash used in investing activities	(82,000)	(625,000)
Financing activities:		
Payment to former shareholders of subsidiary	(450,000)	
Proceeds from issuance of common stock	277,000	54,000
Net cash (used in) provided by financing activities	(173,000)	54,000
Increase in cash and cash equivalents	2,759,000	1,425,000
Cash and cash equivalents at beginning of year	2,625,000	1,200,000
Cash and cash equivalents at end of year	\$ 5,384,000	\$ 2,625,000
Cash and Cash equivalents at end of year	\$ 3,304,000	Ψ 2,023,000
Supplemental disclosure: Notes payable portion of acquisition of minority interest of subsidiary	\$	\$ 450,000
Income taxes paid	\$ 101,000	\$ 10,000
1	,	

See accompanying notes

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IMAGE SENSING SYSTEMS, INC. CONSOLIDATED STATEMENTS OF SHAREHOLDERS EQUITY

	Shares Issued	Common Stock	Additional Paid-In Capital	Retained Earnings (Deficit)	Total
Balance at December 31, 2001	3,153,340	\$ 32,000	\$ 4,600,000	\$ (818,000)	\$ 3,814,000
Tax benefit from disqualifying disposition Common stock issued for options			63,000		63,000
exercised	22,437		54,000		54,000
Net income				1,192,000	1,192,000
Balance at December 31, 2002	3,175,777	32,000	4,717,000	374,000	5,123,000
Tax benefit from disqualifying disposition			87,000		87,000

Common stock issued for options	Shares Issued	Common Stock	Additional Paid-In Capital	Retained Earnings (Deficit)	Total
exercised	112,400	1,000	276,000		277,000
Compensation in the form of performance based stock option			138,000		138,000
Net income				2,135,000	2,135,000
Balance at December 31, 2003	3,288,177	\$ 33,000	\$ 5,218,000	\$ 2,509,000	\$ 7,760,000

See accompanying notes

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Notes to Consolidated Financial Statements

December 31, 2003

1. SIGNIFICANT ACCOUNTING POLICIES

DESCRIPTION OF BUSINESS

Image Sensing Systems, Inc. (referred to herein as we, us, our and the Company) develop and market video image processing technology and products for use in advanced traffic management systems and traffic data collection. We sell our products primarily to foreign distributors and also receive a royalty for sales made by a sublicensee to North American and Latin American distributors. Our products are used primarily by governmental entities.

PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include the accounts of Image Sensing Systems, Inc. and its wholly-owned subsidiary, Flow Traffic Ltd. (Flow Traffic) located in Hong Kong. All significant inter-company transactions and accounts have been eliminated in consolidation.

REVENUE RECOGNITION

Royalty income is recognized based upon a monthly royalty report provided to us by Econolite Control Products, Inc., (Econolite), a sublicensee that sells our product in North America and Latin America. This report is prepared by Econolite based on its sales of products we developed and is based on sales delivered and accepted by its customers. We recognize revenue from product sales at the time of delivery and acceptance, the selling price is fixed or determinable and collectibility is reasonably assured. Consulting fees are recorded as earned. We record provisions against sales revenue for estimated returns and allowances in the period when the related revenue is recorded based upon historical sales returns and changes in customer demands.

CASH AND CASH EQUIVALENTS

We consider all highly liquid investments with an original maturity of three months or less to be cash equivalents. Investments classified as cash

equivalents consist of commercial paper. The market value of these investments approximates cost at December 31, 2003 and 2002.

INVENTORIES

Inventories are primarily finished goods and are valued at the lower of cost or market on the first-in, first-out (FIFO) method.

PROPERTY AND EQUIPMENT

Property and equipment are stated at cost. Depreciation is computed by the straight-line method over a three- to seven-year period for financial reporting purposes and by accelerated methods for income tax purposes.

INCOME TAXES

Income taxes are accounted for under the liability method. Deferred income taxes reflect the effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and amounts used for income tax purposes.

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 consolidated financial statements and reported amounts of revenues and expenses during the reporting periods. Actual results could differ from the estimates.

GOODWILL

Effective January 1, 2002, we adopted Statement of Financial Accounting Standards No. 142 (SFAS 142), Goodwill and Intangible Assets. SFAS 142 eliminates the amortization of goodwill and other intangible assets with indefinite lives and requires that the assets be tested for impairment annually or whenever an impairment

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indicator arises. Our goodwill relates to our Flow Traffic subsidiary and is tested for impairment on December 31 of each year. No impairment of goodwill was recorded as of December 31, 2003 or 2002.

IMPAIRMENT OF LONG-LIVED ASSETS

We record losses on long-lived assets used in operations when indicators of impairment are present and the undiscounted cash flows estimated to be generated by those assets are less than the assets carrying amount. No such losses were recorded in 2003 or 2002.

RESEARCH AND DEVELOPMENT

Research and development costs are charged to operations in the period incurred.

SOFTWARE DEVELOPMENT COSTS

We capitalize software development costs, including significant product enhancements, beginning upon the establishment of technological feasibility for the product and concluding when the product is available for release to distributors. The establishment of technological feasibility and the ongoing assessment of the recoverability of these costs requires considerable judgment by management with respect to certain external factors, including, but not limited to, anticipated future gross product revenue or royalties, estimated economic life, and changes in software and hardware technology. We amortize software development costs based on projected revenue, with minimum annual amortization based on a seven-year life using the straight-line method.

FOREIGN CURRENCY

All assets and liabilities of Flow Traffic are translated from the foreign currency to U.S. dollars at period-end rates of exchange, while the statement of income is translated at the average exchange rates during the period. Accumulated translation adjustments are not material.

NET INCOME PER SHARE

Our basic net income per share amounts have been computed by dividing net income by the weighted average number of outstanding common shares. Diluted net income per share amounts have been computed by dividing net income by the weighted average number of outstanding common shares and common share equivalents relating to stock options, when dilutive.

For the years ended December 31, 2003 and 2002, respectively, 383,000 and 97,000 common share equivalents were included in the computation of diluted net income per share.

Options to purchase 298,000 shares of common stock with a weighted average exercise price of \$3.87 were outstanding at December 31, 2002, but were not included in the computation of diluted net income per share because the exercise price exceeded the average market price of the common shares during the period. At December 31, 2003, the exercise prices of all outstanding options were less than the average market price of the common shares during the period.

STOCK OPTIONS

Stock options issued to employees are accounted for under the intrinsic value method as prescribed by Accounting Principles Bulletin Opinion No. 25, Accounting for Stock Issued to Employees. No stock-based employee compensation cost is reflected in net income, except for costs related to performance based options, because all options granted had an exercise price equal to the market value of the underlying common stock on the date of grant. The following table illustrates the effect on net income and net income per share if we had applied the fair value method of accounting for stock options under the provisions of SFAS No. 123, Accounting for Stock-Based Compensation:

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	Year Ended December 31			
		2003		2002
Net income, as reported Deduct: Total stock-based employee compensation expense determined under	\$	2,135,000	\$	1,192,000
the fair value method for all awards, net of related tax effects		(265,000)		(387,000)
Pro-forma net income	\$	1,870,000	\$	805,000
Income per share:				
Basic as reported	\$.66	\$.38
Basic pro forma		.58		.26
Diluted as reported	\$.60	\$.37
Diluted pro forma		.52		.25

The fair value of each option granted is estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions used: zero dividend yield; expected volatility of 137% in 2003 and 136% in 2002; risk-free interest rate of 2.97% in 2003 and 4.25% in 2002; and expected life of five years for grants in 2003 and 10 years for all previous years presented.

RECLASSIFICATIONS

Certain prior year amounts have been reclassified to conform to the current year presentation.

On January 7, 2002, we acquired the remaining 40% of Flow Traffic Ltd. The acquisition included a \$250,000 cash payment, additional future cash payments totaling \$450,000, secured by letters of credit and notes payable totaling \$250,000. The additional payments of \$450,000 were paid in April 2003 and the letters of credit expired on April 30, 2003. The notes payable totaling \$250,000 would have been due on demand after April 1, 2003, were non-interest bearing and unsecured and were convertible into a total of 100,000 shares of our common stock at \$2.50 per share. To preclude conversion of the notes to common stock, we prepaid the notes in December 2002.

An additional \$100,000 was paid in 2002 to the former shareholders related to earn-out arrangements.

3. CREDIT FACILITY

We have a credit agreement that provides up to \$500,000 in short-term borrowings at 1.25% over the prime rate (effective rate of 5.25% at December 31, 2003), expiring April 30, 2004. The agreement limits the amount of short-term borrowings to 65% of eligible receivables and is reduced by any outstanding letters of credit. Substantially all assets are pledged as collateral on the borrowings. The credit agreement further includes covenants that relate to certain financial statement ratios and restrictions. We had no outstanding borrowings in 2003 or 2002. We expect to renew the agreement at substantially the same terms and conditions prior to expiration.

4. LEASE COMMITMENT

We rent office space and equipment under operating lease agreements expiring at various dates through April 2006. The leases provide for monthly payments of \$14,000 and we are responsible for our proportionate share of increases in operating expenses that exceed a base rent factor. Rent expense amounted to \$182,000 in 2003 and \$173,000 in 2002.

Future minimum annual lease payments under noncancelable operating leases for the years ending December 31, 2004, 2005 and 2006 are \$198,000, \$101,000 and \$8,000, respectively.

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5. INCOME TAXES

Deferred income taxes reflect the effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of our deferred tax assets and liabilities are as follows:

	December 31		
	2003	2002	
Deferred tax assets:			
Accrued compensation	\$ 14,000	\$ 16,000	
Allowance for returns and bad debts	36,000	17,000	
Alternative minimum tax credits	104,000	22,000	
Research and development tax credits		- 289,000	
Net operating loss carry forward		- 219,000	
Less valuation allowance	(104,000	(124,000)	
Other	33,000	33,000	
	83,000	472,000	
Deferred tax liabilities:			
Capitalized software development costs	251,000	346,000	
Net deferred taxes	\$ (168,000	\$ 126,000	

Deferred tax assets have been offset by a valuation allowance as deemed necessary based on our estimates of its future sources of taxable income and the expected timing of temporary difference reversals.

There is \$406,000 in undistributed earnings of our wholly-owned foreign subsidiary at December 31, 2003.

The components of income tax expense are as follows for the years ended December 31, 2003 and 2002:

	Year Ended	December	r 31
	 2003		2002
Current:	456,000	Φ.	05.000
Federal	\$ 456,000	\$	85,000

	Year Ended December 31		er 31	
State		32,000		54,000
Foreign		54,000		35,000
		542,000	_	174,000
Deferred:				
Federal		285,000		
State		9,000		
Foreign				
		294,000		
Total income tax expense	\$	836,000	\$	174,000

A reconciliation of income taxes to the statutory federal rate is as follows:

	December 31			
	_	2003		2002
Federal tax statutory rate	\$	1,010,000	\$	465,000
State taxes, net of federal benefit		27,000		36,000
Research and development tax credits		(50,000)		(10,000)
Effect of lower rates for Flow Traffic Ltd.		(33,000)		(70,000)
Change in valuation allowance		(20,000)		(334,000)
Adjustment of prior year tax credits		(65,000)		
Other		(33,000)		87,000
Income taxes	\$	836,000	\$	174,000

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6. LICENSING

The United States patent for some aspects of the technology underlying our Autoscope system was issued in 1989 to the University of Minnesota. We have an exclusive worldwide license from the University of Minnesota for that technology and pay royalties to the University of Minnesota in exchange for such license. Royalty expense under the agreement was \$277,000 in 2003 and \$268,000 in 2002.

We have sublicensed the right to manufacture and market the Autoscope technology in North America and Latin America to Econolite Control Products, Inc. of Anaheim, California (Econolite) and receive royalties from Econolite on sales of the Autoscope system in those territories. Econolite also manufactures the Autoscope system on a non-exclusive basis for direct sales by us outside of North America and Latin America. We may terminate our agreement with Econolite if a minimum annual sales level is not met. The initial term of the agreement was 15 years, ending in 2006, and was automatically renewable thereafter for additional one-year periods unless terminated by either party upon 60 days notice prior to the end of the initial term or any extension term. In 2001, we signed a five-year extension of our agreement with Econolite, thereby extending its term to 2011.

We recognized royalty income from this agreement of \$5,920,000 in 2003 and \$4,992,000 in 2002. Accounts receivable from Econolite were \$1,430,000 and \$1,175,000 at December 31, 2003 and 2002, respectively.

7. SIGNIFICANT CUSTOMERS AND CONCENTRATION OF CREDIT RISK

We derived the following percentages of our net revenues from the following geographic regions:

	2003	2002
Asia Pacific	28%	30%
Europe	8%	6%
North America	64%	64%

Royalty income from Econolite comprised 64% and 62% of revenues in 2003 and 2002, respectively.

8. RETIREMENT PLAN

Substantially all of our employees are eligible to participate in a qualified defined contribution 401(k) plan in which participants may elect to have a specified portion of their salary contributed to the plan and we may make discretionary contributions to the plan. Discretionary contributions of \$42,000 and \$24,000 were made to the plan for 2003 and 2002, respectively.

9. STOCK OPTIONS

In February 1995, we adopted the 1995 Long-Term Incentive and Stock Option Plan (the 1995 Plan), which provides for the granting of incentive (ISO) and non-incentive (NSO) stock options, stock appreciation rights, restricted stock awards and performance awards to our officers, directors, employees, consultants and independent contractors. The 1995 Plan was amended and restated effective May 17, 2001. The following table summarizes stock option activity for 2003 and 2002:

	Plan Options Available For Grant	Options Available Plan Options		Non-Plan Options Outstanding	Weighted Average Exercise Price Per Share	
		ISO	NSO			
Balance at December 31, 2001 Granted	552,800 (384,700)	288,620 132,980	21,000 261,320	379,440	\$	3.93 1.86
Exercised Canceled	187,100	(1,000) (172,100)	(15,000)	(22,000) (120,000)		2.35 4.62
Balance at December 31, 2002 Granted	355,200 (43,000)	248,500 3,000	267,320 40,000	237,440		2.62 7.65
Exercised Expired		(40,400) (3,000)	(46,000)	(26,000)		2.46 2.97
Balance at December 31, 2003	312,200	208,100	261,320	211,440	\$	2.95

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The following table summarizes information about the stock options outstanding at December 31, 2003.

Options Outstanding			Options	Exercisable	:		
Range of Exercise Price	Number Outstanding	Weighted Average Remaining Contractual Life	Ave	ghted erage ise Price	Number Exercisable	Ave	ghted erage se Price
\$1.30-1.99	212,000	8.9 years	\$	1.46	94,400	\$	1.45
2.00-2.99	201,940	6.2 years		2.48	187,940		2.50
3.00-3.99	192,920	3.0 years		3.74	189,920		3.74
4.00-4.99	28,000	7.0 years		4.13	28,000		4.13
7.00-7.93	46,000	5.1 years		7.87	6,000		7.50

		Options Outstanding			Options E	xercisable	:
\$1.30-7.93	680,860	6.1 years	\$	2.95	506,260	\$	2.92

Options expire at various dates through 2013.

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Report of Independent Certified Public Accountants

Shareholders and Board of Directors

Image Sensing Systems, Inc.

We have audited the accompanying consolidated balance sheets of Image Sensing Systems, Inc. and subsidiary as of December 31, 2003 and 2002, and the related consolidated statements of income, shareholders equity, and cash flows for each of the two years in the period ended December 31, 2003. 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. 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 consolidated financial position of Image Sensing Systems, Inc. and subsidiary at December 31, 2003 and 2002, and the consolidated results of their operations and their consolidated cash flows for each of the two years in the period ended December 31, 2003 in conformity with accounting principles generally accepted in the United States of America.

/s/ Grant Thornton LLP

Minneapolis, Minnesota February 16, 2004 24

Item 8. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

On January 8, 2003, we engaged Grant Thornton LLP as our new independent accountants, commencing with the audit for the fiscal year ended December 31, 2002, and thereby dismissed Ernst & Young LLP. The decision to change independent accountants was approved by our Board of Directors.

The reports of Ernst & Young LLP on our financial statements for the years ended December 31, 2001 and December 31, 2000 contained no adverse opinion or disclaimer of opinion and were not qualified or modified as to uncertainty, audit scope or accounting principle. In connection with the audits for the fiscal years ended December 31, 2001 and December 31, 2000 and all interim periods preceding the dismissal, there had been no disagreements with Ernst & Young LLP on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of Ernst & Young LLP, would have caused them to make reference thereto in their report on the financial statements for such years. During the fiscal years ended December 31, 2001 and December 31, 2000 and all subsequent interim periods and to January 8, 2003, the date of dismissal, there had been no reportable events (as defined in Regulation S-K Item 304(a)(1)(v)).

During the fiscal years ended December 31, 2001 and December 31, 2000 and to January 8, 2003, we had not consulted with Grant Thornton LLP on any items concerning the application of accounting principles to a specified transaction, the type of audit opinion that might be rendered on our financial statements, or the subject matter of a disagreement or reportable event with the former auditor (as described in Regulation S-K Item 304(a)(2)).

We reported the change in accountants on Form 8-K on January 9, 2003. The Form 8-K contained a letter from Ernst & Young LLP, addressed to the Securities and Exchange Commission, stating that it agreed with the statements concerning Ernst & Young LLP in such Form 8-K.

Item 8A. Internal Controls and Procedures

Evaluation of disclosure controls and procedures

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 (the Exchange Act)). Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were adequately designed to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in applicable rules and forms.

Changes in internal control over financial reporting

During the most recent fiscal quarter covered by this report, there has been no change in our internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act) that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART III

Item 9. Directors, Executive Officers, Promoters and Control Persons; Compliance with Section 16(a) of the Exchange Act

We have adopted a Code of Ethics which applies to our principal executive, accounting and financial officers. The Code of Ethics is published on our website at www.imagesensing.com. Any amendments to the Code of Ethics and waivers of the Code of Ethics for our Chief Executive Officer or Chief Financial Officer will be published on our website.

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The sections entitled Election of Directors, Board Meetings and Committees and Section 16(a) Beneficial Ownership Reporting Compliance in our definitive proxy statement for our 2004 annual meeting of shareholders to be filed on or before April 29, 2004, are incorporated into this Form 10-KSB by reference.

Item 10. Executive Compensation

The section entitled Executive Compensation in our definitive proxy statement for the 2004 annual meeting of shareholders is incorporated into this Form 10-KSB by reference.

Item 11. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Equity compensation plans

The following table provides information as of December 31, 2003, about our shares of common stock subject to outstanding awards or available for future awards under our equity compensation plans and arrangements.

Plan Category	Number of shares to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of shares remaining available for future issuance under equity compensation plans (excluding shares reflected in the first column) (2)
Equity compensation plans approved by shareholders ⁽¹⁾	680,860	\$2.95	312,200
Equity compensation plans not approved by shareholders			
Total	680,860	\$ 2.95	312,200

⁽¹⁾ Includes shares underlying stock options under the Image Sensing Systems, Inc. 1995 Long-Term Incentive and Stock Option Plan and non-qualified stock options granted outside the 1995 Plan between 1996 and 2000 to current and former members of the Board of Directors.

The 312,200 shares available for grant under the 1995 Long-Term Incentive and Stock Option Plan may become the subject of future awards in the form of stock options, stock appreciation rights, restricted stock, performance awards or other stock-based awards.

The section entitled Security Ownership of Certain Beneficial Owners and Management in our definitive proxy statement for the 2004 annual meeting of shareholders is incorporated into this Form 10-KSB by reference.

Item 12. Certain Relationships and Related Transactions

The section entitled Certain Relationships and Related Transactions in our definitive proxy statement for the 2004 annual meeting of shareholders is incorporated into this Form 10-KSB by reference.

Item 13. Exhibits and Reports on Form 8-K

(a) List of documents filed as part of the report:

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Exhibit No.	Description
3.1	Restated Articles of Incorporation of ISS, incorporated by reference to ISS s registration statement on Form SB-2 (Registration No. 90298C) filed on March 14, 1995.
3.2	Articles of Amendment to Articles of Incorporation of ISS, incorporated by reference to ISS s quarterly report on Form 10-QSB for the quarter ended June 30, 2001.
3.3	Bylaws of ISS, incorporated by reference to ISS s registration statement on Form SB-2 (Registration No. 90298C) filed on March 14, 1995.
4.1	Specimen form of ISS's common stock certificate, incorporated by reference to ISS's registration statement on Form SB-2 (Registration No. 90298C) filed on March 14, 1995.
10.1	Manufacturing, Distributing and Technology License Agreement dated June 11, 1991, as amended on December 15, 1992, between Econolite Control Products, Inc. and ISS, incorporated by reference to ISS s registration statement on Form SB-2 (Registration No. 90298C) filed on March 14, 1995.
10.2	License Agreement dated June 10, 1991, between the University of Minnesota and ISS, incorporated by reference to ISS s registration statement on Form SB-2 (Registration No. 90298C) filed on March 14, 1995.
10.3	Form of Distributor Agreement, incorporated by reference to ISS s registration statement on Form SB-2 (Registration No. 90298C) filed on March 14, 1995.
10.4	Assignment from Panos G. Michalopoulos to ISS dated January 19, 1985, incorporated by reference to ISS s registration statement on Form SB-2 (Registration No. 90298C) filed on March 14, 1995.
10.5	Production Agreement dated July 8, 1997, between ISS, Cohu, Inc., and Econolite Control Products, Inc., incorporated by reference to Exhibit 10.14 to ISS s annual report on Form 10-KSB for the year ended December 31, 1997.
10.6	Conditional Credit Line Letter Agreement with Wells Fargo Bank Minnesota, N.A. dated September 14, 1998, incorporated by reference to Exhibit 10.17 to ISS s annual report on Form 10-KSB for the year ended December 31, 1998.
10.7	Office Lease Agreement by and between Spruce Tree Centre L.L.P. and ISS, dated November 24, 1998, incorporated by reference to Exhibit 10.18 to ISS s annual report on Form 10-KSB for the year ended December 31, 1998.

10.8*

Executive Employment Agreement dated June 12, 2000, between ISS and William L. Russell, incorporated by reference to Exhibit 10.21 to ISS s quarterly report on Form 10-QSB for the quarter ended June 30, 2000.

- 10.9* 1995 Long-Term Incentive and Stock Option Plan, amended and restated through May 17, 2001, incorporated by reference to Exhibit 10.10 to ISS s annual report on Form 10-KSB for the year ended December 31, 2001.
- Distribution Agreement dated April 20, 2001, between ISS and Wireless Technology, Inc., incorporated by reference to ISS s quarterly report on Form 10-QSB for the quarter ended June 30, 2001.

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- Extension and Second Modification dated July 13, 2001, to Manufacturing, Distributing and Technology License Agreement dated June 11, 1991, between ISS and Econolite Control Products, Inc., incorporated by reference to Exhibit 10.12 to ISS s annual report on Form 10-KSB for the year ended December 31, 2001.
- Definitive Agreement dated July 20, 2001, between ISS and Detector Electronics Corporation, incorporated by reference to ISS s quarterly report on Form 10-QSB for the quarter ended September 30, 2001.
- Shares Sale and Purchase Agreement dated November 28, 2001, among ISS and Berkeley Development Limited, Mats Johan Billow and Grove Place Limited, incorporated by reference to Exhibit 10.10 to ISS s annual report on Form 10-KSB for the year ended December 31, 2001.
- Amendment No. 1 dated as of December 31, 2001, to Shares Sale and Purchase Agreement dated November 28, 2001, among ISS and Berkeley Development Limited, Mats Johan Billow and Grove Place Limited, incorporated by reference to Exhibit 10.15 to ISS s annual report on Form 10-KSB for the year ended December 31, 2001.
- 10.15* Settlement and Release Agreement dated February 11, 2002 between ISS and William L. Russell, incorporated by reference to Exhibit 10.18 to ISS s annual report on Form 10-KSB for the year ended December 31, 2001.
- 10.16* Employment Arrangement between ISS and Anthony H. Gould, incorporated by reference to Exhibit 10.19 to ISS s annual report on Form 10-KSB for the year ended December 31, 2001.
- 10.17 Production Agreement dated February 14, 2002, among ISS, Wireless Technology, Inc. and Econolite Control Products, Inc., incorporated by reference to Exhibit 10.20 to ISS s annual report on Form 10-KSB for the year ended December 31, 2001.
- 10.18* Consultant Agreement effective May 1, 2003 between ISS and Art Bourgeois, incorporated by reference to Exhibit 10.1 to ISS s quarterly report on Form 10-QSB for the quarter ended March 31, 2002.
- 10.19* Employment Agreement effective June 14, 2002 between ISS, Flow Traffic Ltd. and Mats Johan Billow, incorporated by reference to Exhibit 10.1 to ISS s quarterly report on Form 10-QSB for the quarter ended June 30, 2002.
- Amendment No. 3, dated June 14, 2002, to share Sale and Purchase Agreement dated November 28, 2001 among ISS and Berkeley Development Limited, Mats Johan Billow and Grove Place Limited, incorporated by reference to Exhibit 10.2 to ISS s quarterly report on Form 10-QSB for the quarter ended June 30, 2002.
- 10.21* Addendum to Consultant Agreement Between Image Sensing Systems, Inc. and Arthur J. Bourgeois, dated September 11, 2003, incorporated by reference to Exhibit 10.1 to ISS s quarterly report on Form 10-QSB for the quarter ended September 30, 2003.
- 10.22* Consultant Agreement between Image Sensing Systems, Inc. and James Murdakes, dated March 23, 2004.
- Letter from Ernst & Young LLP to the Securities and Exchange Commission dated January 8, 2003, incorporated by reference to Exhibit 16 to ISS s Current Report on form 8-K filed on January 9, 2003.

21 List of Subsidiaries of ISS.

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23.1	Consent of Grant Thornton LLP
24	Power of Attorney (included on signature page).
31.1	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, dated March 30, 2004.
31.2	Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, dated March 30, 2004.
32.1	Chief Executive Officer Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, dated March 30, 2004.
32.2	Chief Financial Officer Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, dated March 30, 2004.

^{*}Management contract or compensatory plan or arrangement.

(b) Reports on Form 8-K

On October 23, 2003 we filed a Current Report on Form 8-K disclosing a financial press release for the third quarter ended September 30, 2003.

Item 14. Principal Accountant Fees and Services

The section entitled Fees Paid to Independent Auditors in our definitive proxy statement for our 2004 annual meeting of shareholders is incorporated into this Form 10-KSB by reference.

SIGNATURES

In accordance with Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has caused this report to be signed on its behalf by the undersigned, thereunto duly authorized:

Image Sensing S	ystems, Inc.
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/s/	James Murdakes	Date:	March 30, 2004
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By: James Murdakes, President and Chief Executive Officer

POWER OF ATTORNEY

In accordance with the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated. Each person whose signature to this report on Form 10-KSB appears below hereby constitutes and appoints James Murdakes and Arthur J. Bourgeois, and each of them, as his or her true and lawful attorney-in-fact and agent, with full power of substitution, to sign on his or her behalf individually and in the capacity stated below and to perform any acts necessary to be done in order to file all amendments to this report on Form 10-KSB, and any and all instruments or documents filed as part of or in connection with this report on Form 10-KSB or the amendments hereto, and each of the undersigned does hereby ratify and confirm all that said attorney-in-fact and agent, or his substitutes, shall do or cause to be done by virtue hereof.

/s/ James Murdakes	Date: March 30, 2004
James Murdakes President and Chief Executive Officer, Chairman of the Board of Directors (Principal Executive Officer)	
/s/ Arthur J. Bourgeois	Date: March 30, 2004
Arthur J. Bourgeois Chief Financial Officer (Principal Financial & Accounting Officer)	
/s/ Panos G. Michalopoulos	Date: March 30, 2004
Panos G. Michalopoulos Director	
/s/ Richard P. Braun	Date: March 30, 2004
Richard P. Braun Director	
/s/ Richard C. Magnuson	Date: March 30, 2004
Richard C. Magnuson Director	
/s/ Michael Eleftheriou	Date: March 30, 2004
Michael Eleftheriou Director	

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