UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM 10-K

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

For the fiscal year ended: September 30, 1998

OR

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

For the transition period from _____ to _____

Commission File Number: 0-11412

AMTECH SYSTEMS, INC.
(Exact name of Registrant as Specified in its Charter)

Arizona	86-0411215
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
131 South Clark Drive, Tempe, Arizona	85281
(Address of Principal Executive Offices)	(Zip Code)

Registrant's telephone number, including area code: 602-967-5146

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

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

common stock, $.01 Par Value
(Title of Class)

Redeemable Public Warrant
(Title of Class)

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

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

State the aggregate market value of voting stock held by non-affiliates of the registrant: $2,848,000 as of December 22, 1998

APPLICABLE ONLY TO REGISTRANTS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PRECEDING FIVE (5) YEARS:

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Section 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court. [ ] Yes [ ] No

APPLICABLE ONLY TO CORPORATE REGISTRANTS

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of the latest practicable date: 4,232,632 shares of common stock, $.01 par value, outstanding as of December 3, 1998.

DOCUMENTS INCORPORATED BY REFERENCE

PART III (Items 10-13) is incorporated by reference to the registrant's proxy statement for the Registrant's Annual Meeting of Shareholders to be held on or about February 26, 1999.

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PART I

ITEM 1. BUSINESS

BACKGROUND

Amtech Systems, Inc. (the "Company") was incorporated in Arizona in October 1981, under the name Quartz Engineering & Materials, Inc., and changed to its present name in 1987. The Company also conducts operations through two (2) wholly owned subsidiaries, Tempress Systems, Inc. ("Tempress Systems") and P.R. Hoffman Machine Products, Inc. ("P.R. Hoffman").

The Company's initial business was the manufacture of quartzware implements for sale to and use by manufacturers of semiconductor chips. The Company is currently, and has been since 1987, engaged in the manufacture and marketing of several items of capital equipment used by customers in the manufacture of semiconductors, two of which are patented. The Company's

Processing/Robotic product line (Atmoscan(R), IBAL and load stations) is designed to enable its customers to increase the degree of control over their semiconductor chip manufacturing environment and to reduce exposure to contaminants by limiting human contact during the manufacturing process. IBAL also reduces certain ergonomic risks to equipment operators and wafers during the manufacturing process. In fiscal 1995, the Company began the complementary business of producing and selling horizontal diffusion furnaces for use in semiconductor fabrication, through its wholly owned subsidiary, Tempress Systems. In fiscal 1998, the Company, through its Tempress operations, began producing and selling conveyor diffusion furnaces for use in precision thermal processing of electronic parts.

In July 1997, the Company acquired substantially all of the assets of P.R. Hoffman Machine Products Corporation and began developing, manufacturing, marketing and selling double sided precision lapping and polishing machines, replacement parts and related products including carriers and semiconductor polishing templates through its wholly owned subsidiary, P.R. Hoffman. These products are high throughput precision surface processing systems used in the manufacture of semiconductor wafers, precision optics and other thin wafer materials, such as computer disk media and ceramic components for wireless communication devices.

In the fourth quarter of fiscal 1997, the Company began offering manufacturing support services to one of its Texas-based customers. These services consist of wet and dry cleaning of semiconductor machine processing parts. The Company intends to offer manufacturing support services to other customers and third parties as such opportunities become available.

In 1994, the Company commenced efforts to develop a new photo chemical vapor deposition ("CVD") product for use in semiconductor manufacturing facilities, which product would be based upon the Company's existing U.S. patent on such technology. The Company engaged the University of California, Santa Cruz (the "University") to conduct a study to determine the feasibility of developing a CVD product. This study has proven that the Company's patented method solves the problem inherent in photo CVD processing, i.e. materials being deposited obstruct the ultra-violet light used for activating the desired chemical

reactions. However, the study has not yet developed a photo-assisted machine that produces a commercially viable rate of deposition. In this regard, the University's study has produced several generations of higher intensity light sources, none of which have yielded results that would enable the Company to produce a commercially viable product. As of September 30, 1998, the Company indefinitely suspended funding of the CVD research and development efforts as a result of the slow down in the semiconductor industry and the slow progress being made. See "Operating Strategy and Industry Overview."

Unless the context otherwise requires, the "Company" refers to Amtech Systems, Inc., an Arizona corporation, and its wholly owned subsidiaries. The Company's principal executive offices are located at 131 South Clark Drive, Tempe, Arizona 85281 and its telephone number is (602) 967-5146.

OPERATING STRATEGY AND INDUSTRY OVERVIEW

The Company is engaged primarily in the manufacture and marketing of several items of capital equipment and related consumables and spare parts used by customers in the manufacture and fabrication of semiconductors. Semiconductors, or semiconductor "chips," are made of silicon and are part of the circuitry of electronic computers. The manufacture of semiconductors involves many complex processing steps during which silicon wafers (the substrates from which chips are made) are inserted in a diffusion furnace and subjected to the precise flow of gases under very intense heat.

The Company manufactures and sells horizontal and conveyor diffusion furnaces through its wholly owned subsidiary, Tempress Systems. In addition, the Company manufactures and sells a Processing/Robotic product line designed to enable customers using horizontal diffusion furnaces to increase their degree of control over the manufacturing environment and to reduce exposure to contaminants by reducing the amount of human contact during the manufacturing process. Following an industry trend, the size of individual semiconductor chips has tended to decrease while the size of the wafers from which chips are made has tended to increase. As a result, the value of each wafer has increased because each is the source of an increased number of chips. As the value of wafers increase, so too does the importance of control over the manufacturing environment.

There also is a trend in the semiconductor industry, related to the trend to smaller chips, toward the use in semiconductor manufacturing facilities of newer technology, vertical diffusion furnaces. Vertical diffusion furnaces are more efficient to use than the horizontal diffusion furnaces in certain manufacturing processes of smaller chips on larger wafers, however, such furnaces are significantly more expensive to purchase than horizontal diffusion furnaces. The Company's Processing/Robotic product line is useable with horizontal diffusion furnaces only.

The July 1997 addition of P.R. Hoffman's product line of double sided precision lapping and polishing machines and related products has broadened and expanded the markets served by the Company, which now include fabricators of semiconductor devices to the producers of the silicon wafers used by those fabricators. Following the P.R. Hoffman acquisition, the Company began marketing the P.R. Hoffman product line through its larger and more established distribution network. Similarly, the Company began marketing its existing products to the markets being served by P.R. Hoffman.

The Company's target market for its Processing/Robotic product line consists of customers who wish to increase the efficiency and safety (or ergonomics) of their existing semiconductor manufacturing facilities equipped with horizontal diffusion systems. Through its Tempress System operations, the Company also provides its customers with efficient integrated horizontal diffusion furnace systems for use in semiconductor fabrication, and, to a lesser extent, conveyor diffusion furnace systems for use in precision thermal processing of electronic parts. The Company's target market also includes customers whose operations do not require or otherwise want the higher priced vertical diffusion furnace systems. Based on market information obtained through customer and market contacts, the Company believes that a majority of worldwide semiconductor manufacturing facilities is equipped with horizontal diffusion furnaces, as compared with vertical diffusion furnaces. While the Company estimates that each year the percentage of facilities in the world equipped with vertical systems will become closer to and eventually surpass that of horizontal systems, it believes that a significant demand for its present product line will continue to exist, although there can be no assurance in that regard. The Company plans to increase its share of the diffusion furnace market by expanding its manufacture and sales of horizontal diffusion furnaces. In 1996, Tempress Systems acquired a modern, high-tech manufacturing facility in Heerde, The Netherlands, for its European operations, and moved its operations into this new facility.

The Company's target market for its lapping and polishing machines and related consumables and spare parts are producers of silicon wafers, manufacturers that use silicon wafers in the fabrication of semiconductors and producers of thin wafers made of other materials, such as quartz, ceramics and metals used in the manufacture of optics, computer storage disks and ceramic components for wireless communication products. Sales to customers processing optics and ceramics were 13% of consolidated sales in fiscal 1998. The long-term demand for silicon wafer lapping and polishing machines and related products has been fueled by the inherent need of semiconductor device manufacturers to continually meet the growing demand for such semiconductors caused by the rapid increase in the uses for such devices. In order to produce today's higher density chips, semiconductor manufacturers must maintain tighter tolerances with respect to the surface finish, flatness and planerization of the bare silicon wafer, which in turn is requiring more polishing steps and thus more surface processing equipment and supplies. A similar trend is occurring in the computer disk industry as manufacturers strive to produce higher density drives in order to satisfy end user demand for greater storage capacity and reduced size.

INDUSTRY CYCLES AND TRENDS. Sales of the Company's products depend in large part upon the capital equipment expenditures and/or operating levels of semiconductor manufacturers, which depend on current and/or anticipated market demand for integrated circuits and products utilizing integrated circuits. The semiconductor industry is highly cyclical and has historically experienced periodic downturns, which often have had a severe adverse effect on capital and operating expenditures by semiconductor manufacturers. Semiconductor industry downturns have and currently are adversely affecting the sales, gross profit and operating results of suppliers that serve the industry, including the Company. The industry is also experiencing the consolidation of semiconductor manufacturing operations through mergers and the subcontracting out of the production of semiconductors to foundries. The Company believes that growth in its sales and a return to profitability will depend upon increased demand for semiconductors. A continued downturn in the industry and further consolidation of semiconductor manufacturing operations may have a material adverse effect on the Company's business and results of operations.

BACKLOG. In recent years, the Company has experienced a significantly greater order backlog than prior periods. Those increases in backlog were due primarily to the continuing expansion of Tempress Systems, a large multi-year order and the July 1, 1997 acquisition of the P.R. Hoffman operations. In fiscal 1998, as a result of the turmoil in the Asian financial markets, equipment sales into that region have significantly declined. This decline, however, was partially offset by re-focusing sales and marketing efforts on other regions of the world, including, specifically, the U.S., Spain and Australia.

PRODUCTS

DIFFUSION FURNACES

Through its wholly owned subsidiary, Tempress Systems, the Company produces and sells horizontal and conveyor diffusion furnace systems, which generally include a Tempress(R) load station, with the Tempress(R) trademark. These furnaces utilize existing industry technology for sale to customers who do not require the advanced automation of, or want to incur the major expense of, acquiring vertical diffusion furnaces. While the major advantage of vertical diffusion furnaces is their susceptibility to increased automation, which decreases the degree of human intervention in the manufacturing process, the use of horizontal diffusion furnaces, with less automation, is more economical for larger size chips and multi-model semiconductor manufacturing. While industry forecasts indicate that overall market demand for horizontal diffusion furnaces will decline, the Company believes that a significant niche market will persist.

The Company started the horizontal diffusion furnace business utilizing certain acquired assets previously owned by a bankrupt company, Tempress B.V., located in The Netherlands, including the right to use the trade name "Tempress(R)" in connection with such furnaces. Tempress B.V. was involved in the development, manufacture and sale of a number of different products, including a horizontal diffusion furnace. The right to use the trade name "Tempress" is also held by three subsidiaries of the former Tempress B.V. in connection with the sale of other Tempress products and services unrelated to the horizontal diffusion furnace. The Company believes, and sales volume would appear to support, that the diffusion furnace products it designs and sells under the "Tempress" name are gaining acceptance by the Company's targeted market.

In fiscal 1998, the Company began producing and selling conveyor diffusion furnace systems used to produce thick films for the electronics industry. Conveyor furnace systems provide for precision thermal processing of electronic parts for thick film applications, anneal, sealing, soldering, silvering, curling, brazing, alloying, gloss-metal sealing and component packaging.

PROCESSING/ROBOTIC EQUIPMENT

ATMOSCAN(R)

The Company's "Atmoscan(R)" is a patented controlled environment wafer processing system for use with horizontal diffusion furnaces. When in use, it is loaded with wafers and inserted into the diffusion furnace under a nitrogen controlled environment. The technology protected by the Company's Atmoscan(R) patents is a processing method that includes a cantilever tube used to load silicon wafers into a diffusion furnace and through which a purging inert gas flows during the loading and unloading processes.

The Company believes that among the major advantages afforded by the Atmoscan(R) product are increased control of the environment of the wafers during the gaseous and heating process, thereby increasing yields and decreasing manufacturing costs, and a decreased need for the cleaning of diffusion furnace tubes, which ordinarily involves substantial expense and equipment down time. Additional significant economies in the manufacturing process are also believed to result.

The Company has manufactured and sold Atmoscan(R) units to major semiconductor manufacturers in the United States, the Pacific Rim and Europe, including at various times to International Business Machines, Intel Corporation, Samsung, Digital Equipment Corp., Motorola, SGS-Thompson, SVG-Thermco and others. Sales of Atmoscan(R) have declined from their peak in 1989, due to an industry trend toward use of vertical diffusion furnaces.

The Company has designed and sells an open cantilever paddle system, which remains the most commonly used horizontal wafer loading system in the semiconductor industry. Similar systems have been used by the industry since the introduction of the Atmoscan(R), the Company's alternative to the cantilevered processing system.

IBAL AUTOMATION

"IBAL" is an acronym for "Individual Boats with Automated Loading." The Company's IBAL automation system is a patented integrated automation system composed of several modules, with the base module being called simply IBAL. Boats are quartz trays that hold silicon wafers while they are being processed in diffusion furnaces. IBAL Trolley is comprised of hardware and software, which automatically places boats into Atmoscan(R) tubes or onto a cantilever paddle system before they are inserted in the diffusion furnace and automatically removes the trays after completion of the process.

IBAL Butler is a robotics device which further automates the loading of wafers into the diffusion furnace by automatically transferring wafer carriers onto the IBAL Trolley for loading into the Atmoscan(R) or on the cantilever paddle system for the appropriate furnace tube. IBAL Queue provides a convenient

staging area for the operator to place boats on a load station and automates the loading of those boats onto the IBAL Butler. The first IBAL Queue unit was shipped during the second quarter of fiscal 1994. Use of the IBAL products reduces human handling and, therefore, reduces exposure of wafers to contaminants during the loading and unloading of the process tubes. All of the IBAL modules have been designed by the Company.

LOAD STATIONS

The IBAL automation products described above are offered and sometimes sold as a complete system, mounted on a device called a "load station," which also includes an ultra-clean environment for wafer loading by filtering and controlling the flow of air. The Company began shipping such high-end load stations in fiscal 1992. Those stations are assembled and tested in the Company's Tempe, Arizona facility. Further, almost all diffusion furnaces, described below, are sold with either a Tempress(R) load station, manufactured in The Netherlands, or a high-end load station described in the preceding sentence.

The Company believes that sales of its processing and robotic product line are more likely to be negatively impacted by the present industry slowdown than diffusion furnace sales. This difference is primarily attributable to the fact that processing and robotic equipment are more likely to be viewed by potential customers as discretionary items, as opposed to diffusion furnaces which are integral to a customer's operations.

DOUBLE SIDED PLANETARY LAPPING AND POLISHING MACHINES

Through its wholly owned subsidiary, P.R. Hoffman, the Company develops, manufactures, markets and sells double sided precision lapping and polishing machines and complementary products including carriers, semiconductor polishing templates and parts. Double sided lapping and polishing machines are designed to process wafer type products such as semiconductor silicon wafers, precision optics, computer disk media and ceramic components for wireless communication devices to exact tolerances of thickness, flatness, parallelism and surface finish. The polishing process is used to change the characteristics of the surface of a semiconductor wafer and a variety of other wafer materials. Polishing is a complex science, often involving multiple steps, each at a specified set of process parameters such as polishing speed, pressure, time and temperature. Polishing improves the flatness (planarity), smoothness and optical properties of a surface.

Processes similar to polishing include lapping (a process where no polishing pad is used and the workpiece is pressed into a polishing liquid (slurry) which is applied to a cast-iron lapping wheel). Lapping results in higher removal rates than polishing but produces rougher surface finishes. Dimensional tolerance, surface finish, quantity of material to be removed along with production rates required and cost of operation are the primary variables considered in the determination of the best process for a specific application. Polishing and other surface treatment processes are typically followed by a cleaning process.

The following table summarizes the various models of surface processing machines produced by the Company and the markets for each of these products:

DOUBLE SIDED LAPPING AND POLISHING MACHINES

MODEL	YEAR INTRODUCED	MARKETS
PR-1	1938	Quartz
PR-2	1940	Quartz
1500	1990	Quartz, ceramics, medical
1900	1992	Ceramics, optics, computer disks
3100	1995/96	Computer disks, optics, metal working, ceramics
4800	1981	Silicon semiconductor, optics, metal working, ceramics

On average, the Company's surface processing systems are priced lower than competing systems offered by SpeedFam, Peter Wolters of America, and Lapmaster. The systems offered by the Company's competitors tend to feature more sophisticated controls and user interfaces, and thus in some applications can be operated by less skilled employees.

CARRIERS

Carriers are workholders where wafers are nested during the lapping and polishing processes. Carriers are produced for the Company's line of lapping and polishing machines as well as for competitors' systems. Substantially all of the carriers are customized for specific applications. The Company produces custom carriers in a variety of sizes, configurations and materials. A significant and

expanding category of the Company's steel carriers contain plastic inserts molded into the work-holes of the carrier and are referred to as insert carriers. Although standard steel carriers are preferred in many applications because of their durability, rigidity and precise dimensions, they are typically not suited for applications involving softer materials or when metal contamination is an issue. Steel carriers can cause damage (edge chipping) to

delicate parts (i.e. larger semiconductor wafers). Insert carriers provide the advantages of steel carriers while reducing the potential of damage to the edges of sensitive materials.

The Company licenses the design for its steel carrier with plastic inserts from Wacker GmbH in Germany ("Wacker"). Under a non-exclusive license agreement with Wacker, the Company pays Wacker a 5% royalty for carriers sold by the Company based on this design. The royalty fee does not apply to sales to the licensor. The Company believes that the licensor, despite patenting the design, is currently unable to consistently manufacture insert carriers which properly hold the wafer in place and the Company believes that its proprietary manufacturing process provides a competitive barrier to entry.

SEMICONDUCTOR POLISHING TEMPLATES

The Company's single sided polishing templates are used to polish silicon wafers. Since the Company does not manufacture surface processing machines for single sided applications, templates are designed to work with machines manufactured by leading suppliers in this market segment such as SpeedFam, IPEC, Gigamet and Strasbaugh. Polishing templates are customized for specific applications and are manufactured to such exacting tolerances that even a change in humidity of 10% can result in unacceptable mechanical defects, performance and durability.

PLATES, GEARS, WEAR ITEMS AND OTHER PARTS

The Company produces a wide assortment of plates, gears, parts and wear items for both its own as well as for competitors' machines. The Company manufactures approximately eighty percent (80%) of the parts that are used in its machines. In addition to producing standard off-the-shelf parts, the Company has the ability to produce highly customized parts.

PROPOSED NEW PRODUCTS

The Company has patented an invention which it believes may become of significant importance to the semiconductor manufacturing industry if it can be developed into a commercially viable product. From 1994 to 1998, the Company commissioned a research study conducted by the University of California to determine the feasibility of developing semiconductor manufacturing equipment using this patented invention. The invention relates to an improvement to the CVD process used in the manufacture of certain semiconductors. This improved CVD process uses ultraviolet light to activate the deposition reactions rather than thermal heat or plasma, which are presently the common means in commercial CVD processing. This photo-assisted CVD process is separate and distinct from the diffusion process in which the Company's existing products are used and its use is not limited to facilities with horizontal diffusion furnaces, as are the Company's existing diffusion products. In September 1998, the Company elected to indefinitely suspend funding of the University's CVD research and development efforts until such time as the Company determines its prospects for producing a commercially viable product have improved and the general downturn in the semiconductor industry has shown signs of recovery.

MANUFACTURING AND SUPPLIERS

The Company assembles its equipment and systems from components and fabricated parts manufactured and supplied by others, including quartz and metal components. Certain parts are fabricated in the Company's machine shops. Certain of the items manufactured by others are made to the Company's specifications. All final assembly and system tests are performed within the Company's manufacturing/assembly facilities. Quality control is maintained through incoming inspection of materials and components, in-process inspection during equipment assembly and final inspection and operation of manufactured equipment prior to shipment. The Company's Processing/Robotic product line is manufactured at its Tempe, Arizona plant. The Company conducts similar engineering, purchasing and assembly operations in the manufacture of its diffusion furnace line in a building owned and located in Heerde, The Netherlands.

The Company's operations in Carlisle, Pennsylvania are equipped to perform a high percentage of its manufacturing processes. Manufacturing at this facility includes the following: metal stamping, milling, painting, assembling, welding, punching, cutting, heat treating, machining and laminating. Manufacturing processes which are typically subcontracted out by this location include plastic injection, laser cutting and wire EDM machining, and complex electrical wiring. Key suppliers include two (2) steel mills capable of holding

the type and tolerances the Company requires, an injection molder that provides plastic insets for steel carriers, a pad supplier that produces a unique material used to attach semiconductor wafers to the polishing template (sole sourced from a Japanese company), and adhesive manufacturer that supplies the critical glue used in the production of the semiconductor polishing templates.

ORDER BACKLOG

As of November 30, 1998, the Company's order backlog for semiconductor equipment was approximately $4,800,000 compared to approximately $5,860,000 at the same date in the previous year. The Company includes in its backlog all credit approved customer purchase orders. Orders in the backlog may be canceled by the customer upon payment of mutually acceptable cancellation charges. The Company anticipates that substantially all of its current backlog will be shipped in fiscal 1999. Orders generally are shipped within three to six months of receipt. Accordingly, the backlog may not be a valid measure of revenue for a future period. In addition, a backlog does not provide any assurance that the Company will realize a profit from the order.

RESEARCH, DEVELOPMENT AND ENGINEERING

The markets served by the Company are characterized by evolving industry standards and rapid technological change. To compete effectively in its markets, the Company must continually improve its products and its process technologies and develop new technologies and products that compete effectively on the basis of price and performance and that adequately address current and future customer requirements. The Company's research and development

expenditures during fiscal 1996, 1997 and 1998 were approximately $325,000, $280,000 and $438,000, respectively. Due to the suspension of the photo-assisted CVD project and the general slowdown in the semiconductor industry, the Company has reduced its fiscal 1999 budget for research and development to approximately $190,000. The Company intends to develop new products in the future that are complementary to the Company's existing product line to the extent that resources are available to do so.

The Atmoscan(R) was acquired in 1983 through a licensing arrangement with its inventor, who was not employed by the Company. The Company's other products (excluding the Company's products acquired in the P.R. Hoffman acquisition) were developed by Company personnel. The patented photo-assisted CVD technology was invented and patent rights were assigned to the Company by an employee. The Company presently employs at its Tempe, Arizona plant, three engineers, including one with a Ph.D. and one in the sales department, and three technicians. The Company presently employs eight engineers, one with a Ph.D., and eight technicians in its Netherlands operation. These employees design and support the horizontal diffusion furnace and conveyor furnace product lines manufactured in The Netherlands. Two engineers and one technician are employed in the Company's Carlisle, Pennsylvania operation. They design wafer lapping machines and carriers to meet the customers' processing requirements.

Historically, the Company's product development has been accomplished through cooperative efforts with two key customers. While there can be no assurance that such relationships will continue, such cooperation is expected to continue to be a significant element in the Company's future development efforts. The Company's relationship with one of these customers is substantially dependent on the personal relations established by the Company's President, Mr. Jong S. Whang.

PATENTS

Generally, the effect of a patent is that the courts will grant to the patent holder the right to prevent others from making, using and selling the combination of elements or combination of steps covered by the patent. The Company has several United States patents on the Atmoscan(R) system, each reflecting an improvement to or modification of the previous patent. The two Japanese patents on the Atmoscan(R) cover the first two U.S. patents listed in the table, below.

The Company has two United States patents on its photo-assisted CVD method, the second being an improvement on the first, and the Japanese patent is pending on the photo-assisted CVD method. In 1998, the Company was granted a patent on it's IBAL Cantilever Trolley and has a second patent pending which is an improvement on the first. The cantilever, itself, load stations, the diffusion furnaces, lapping and polishing machines, carriers and semiconductor polishing templates are not protected by patents.

The following table shows the patents granted and the expiration date thereof and the patents pending for the Company's products in each of the countries listed below:

	EXPIRATION DATE OR

PRODUCT	COUNTRY	PENDING APPROVAL
Atmoscan(R)	United States	July 10, 2001
Atmoscan(R)	United States	July 2, 2002
Atmoscan(R)	United States	August 30, 2005
Atmoscan(R)	Korea	May 30, 1999
Atmoscan(R)	Japan	June 1, 2004
Atmoscan(R)	Japan	July 18, 2005
Atmoscan(R)	European Patent Community	
	- France	July 18, 2004
	- Germany	July 18, 2004
	- United Kingdom	July 18, 2004
	- Italy	July 18, 2004
	- Netherlands	July 18, 2004
IBAL Cantilever Trolley	United States	July 10, 2015
IBAL Cantilever Trolley	United States	Pending Approval
Photo CVD	United States	June 1, 2010
Photo CVD	United States	November 15, 2011
Photo CVD	Japan	Pending Approval

The Company's ability to compete may be enhanced by its ability to protect its proprietary information, including the issuance of patents and trademarks. While no intellectual property right of the Company has been invalidated or declared unenforceable, there can be no assurance that such rights will be upheld in the future. There can be no assurance that in the future products, processes or technologies owned by others, necessary to the conduct of the Company's business, can be licensed on commercially reasonable terms.

In the normal course of business, the Company from time to time receives and makes inquiries with regard to possible patent infringement. In dealing with such inquiries, it may become necessary or useful for the Company to obtain and grant licenses or other rights. However, there can be no assurance that such license rights will be available to the Company on commercially reasonable terms. Although there can be no assurance about the outcome of such inquiries, the Company believes that it is unlikely that their resolution will have a material adverse effect on its results of operations or financial condition.

SALES AND MARKETING

There are two components of the market for the Company's Processing/Robotic and diffusion furnace product line, which consists of semiconductor manufacturers in the United States, Korea, Western Europe, Taiwan,

Japan, India, Australia and the People's Republic of China. One component consists of customers who are installing new semiconductor manufacturing facilities. The other component consists of customers who wish to install new equipment systems in existing facilities. The Company's products have been sold in both components. The Company has increased and intends to continue to increase its share of that market by expanding sales of horizontal diffusion furnaces manufactured by the Company in its Netherlands facility and increasing its sales, marketing and manufacturing capabilities in Europe. This plan has and is expected to increase revenue not only through added sales of horizontal furnaces or Processing/Robotic products, but also by making each of the products more competitive by offering them as a part of a broader complement of diffusion products with greater capabilities. For example, the Company expects to generate increased sales of diffusion furnaces because it will offer them together with Atmoscan(R) and IBAL products. One aspect of this strategy is to sell these products under the Amtech/Tempress name, where appropriate. The Company also expects to obtain orders for its new horizontal diffusion furnace from former Tempress customers as well as customers in the United States, a large market that had not been effectively penetrated by Tempress in recent years.

The Company has historically marketed its polishing machines and related parts and expendables to manufacturers of silicon wafers for the semiconductor industry, equipment with optical components, disk media for the computer industry, and ceramic components for wireless communication products. The Company also sells diffusion furnace and process/robotic products to some of these customers, as it did prior to the P.R. Hoffman acquisition. Further, the Company believes the process of sales lead generation will be enhanced by the sharing of leads among its increased number of product lines, including those acquired in the P.R. Hoffman acquisition transaction.

The Company's installed base of customers (facilities at which the Company's products are installed and operating) includes Intel Lucent Technologies, Motorola, Digital Equipment, Texas Instruments, National Semiconductor, Phillips, SGS-Thomson, Matsushita, Oki, Samsung, Sumitomo Sitix, Mitsubishi, Hyundai, ITT Night Vision, UMC and BP Solar. Of these corporations, Motorola, Digital Equipment, Intel Corporation, SGS-Thomson, and Samsung have been customers of the Company for approximately 14 years.

The Company markets its products by direct customer contact by the

Company's sales personnel, which consists of eight persons based in the United States, including the President, the President of P.R. Hoffman, two other outside salesmen and an inside sales and marketing staff of four persons. The Company employs five sales and marketing personnel in The Netherlands. The Company also markets its products through a network of domestic and international independent sales representatives and distributors. The Company's promotional activities have consisted of advertising in trade magazines and the distribution of product brochures. The Company also participates in trade shows, including Semicon West, Semicon Europa, Diskcon and one large optical show per year. The Company is dependent on its President, Jong S. Whang, for sales and marketing activities in Asia and its sales are enhanced by his active involvement with the accounts of certain other key customers.

During fiscal 1998, two customers accounted for 12% and 12% , respectively, of sales from continuing operations. No other customers accounted for 10% or more of sales. For a more complete analysis of significant equipment

customers, see Note 6 of the Notes to Consolidated Financial Statements included herein (the "Financial Statements").

There are presently twelve independent sales representatives and five international distributors, each covering a specified geographical area on an exclusive basis. The areas now covered by representatives are the New England area, Texas, the United Kingdom, Central Europe (including Germany, Switzerland and Austria), France, India, Italy, Korea, Singapore, Malaysia, Taiwan, Thailand and the People's Republic of China. Representatives are paid a commission as specified from time to time in the Company's commission schedule, which at present is generally higher for complete systems and lower for spare parts and accessories. Further, a discount has been granted to a customer who is a manufacturer of diffusion furnaces.

Semiconductor equipment sales generally fluctuate with the level of capital spending in the semiconductor industry. The semiconductor business is cyclical.

COMPETITION

The Company is not aware of any significant product that directly competes with the Atmoscan(R), however, there are several processing systems and various configurations of existing manufacturing products which provide advantages similar to those that the Company believes the Atmoscan(R) provides to semiconductor manufacturers. Notwithstanding this competition, the Atmoscan(R) provides better results in terms of more uniform wafer temperature and dispersion of heated gases in the semiconductor manufacturing process, less exposure of semiconductor wafers to contaminants, and other technical advantages which afford to its users a higher yield and, therefore, a lower per item cost in the manufacture of semiconductors. While the industry trend is toward the use of vertical diffusion furnaces (with which Atmoscan(R) is not useable), the Company believes that a number of customers are and will continue to be willing to buy Atmoscan(R) units and horizontal diffusion furnaces because for all but very large production runs of smaller geometry chips there is a higher productivity with horizontal furnaces and because many applications do not involve the processing of smaller devices on larger silicon wafers and thus do not require the much more expensive vertical furnaces.

The Company believes that there are several products in the market which perform the same functions as the IBAL automation products, IBAL Atmoscan(R) Trolley, IBAL Cantilever Trolley, IBAL Butler and IBAL Queue, but they require more expensive clean room floor space and are more expensive. The IBAL products are intended for customers who do not have or want to dedicate the additional clean room space required for competing, more complex systems. Load stations are sold to customers that are upgrading their existing facilities with other products of the Company or as part of a larger equipment package to customers starting-up new facilities. These load stations provide a cleaner environment than those they replace and the higher-end models can reduce the down-time for the upgrade or installation as these load stations were specifically designed to accept the Company's Processing/Robotic products without further modification. Products competitive with the Company's load station are sold by several well-established firms, larger than the Company. The Company believes, however, that there is a niche market for its load stations because they can be packaged with Atmoscan(R), IBAL products and/or sold in conjunction with Tempress(R) diffusion furnaces. The cantilever paddle system is

designed for easy assembly and disassembly to minimize down-time during maintenance. The Company expects to sell its horizontal diffusion furnaces to customers who purchase them in small quantities and that it will maintain a competitive position through its policy of providing competitive prices and product support services designed for the customer's specific requirements.

There are competitors for the carriers, wafer lapping and polishing machines and related replacement parts and semiconductor polishing templates

that are larger than the Company. The Company believes that it is able to effectively compete with other manufacturers of carriers by continually updating its product line to keep pace with the rapid changes in its customers' requirements. The Company is able to capture a small share of the semiconductor polishing template market primarily by meeting the industry's perceived need for a second source so as avoid continued dependence upon the dominant industry leader. The Company believes that its ability to compete for sales of all of its products, including machines, is enhanced by the reputation of its double sided planetary lapping and polishing machines, which are highly regarded for applications involving delicate and thin (approximately 100 microns) wafers made of various materials. The Company believes these products compare favorably to the competition with respect to the following factors: durability, maintaining close thickness tolerances of wafers and other parts and quality, reliability, performance and price.

EMPLOYEES

At December 4, 1998 the Company employed 89 people (including corporate officers and 6 contract employees); 48 in manufacturing, 18 in engineering, 10 in administration, and 13 in sales. Of these, 14 are based at the Company's offices and plant in Tempe, Arizona, 24 are employed at its facility in Carlisle, Pennsylvania, 41 at its facility in Heerde, Netherlands, and 10 for the Company's contract semiconductor manufacturing support services business located in Austin, Texas. Of the 24 people employed at the Company's Carlisle, Pennsylvania facility, 14 are represented by the United Auto Workers Union - Local 1443. The Company has never experienced a work stoppage or strike. The Company considers its employee relations to be good.

FINANCIAL INFORMATION ABOUT FOREIGN AND DOMESTIC OPERATIONS AND EXPORT SALES

The following table shows the amounts of revenue attributable to the Company's foreign sales for the past three fiscal years (the sales to customers in the United States are included in the table for comparison purposes). All foreign sales were associated with non-affiliates.

	1998		1997		1996	
United States (1)	$ 9,029,000	55%	$ 4,227,000	38%	$3,314,000	39%
Far East (2)	1,228,000	8%	3,044,000	27%	3,332,000	40%
Europe (3)	5,030,000	31%	3,840,000	35%	1,768,000	21%
Australia	927,000	6%	--	--	--	--
TOTAL	$16,214,000	100%	$11,111,000	100%	$8,414,000	100%

(1) Includes sales in Canada and in Costa Rica in 1998 and 1997.
(2) Includes Korea, Singapore, Taiwan, Japan, the People's Republic of China, Singapore, Indonesia, India and Malaysia.
(3) Includes sales in Israel and Africa, which are not material.

For a further description of foreign sales, see Note 6 of the Notes to the Financial Statements included herein.

ITEM 2. PROPERTIES

The Company's semiconductor equipment business and corporate offices are located in 9,000 square feet of office and manufacturing space at its principal address. These facilities are leased at a current rate of $4,400 per month, on a triple net basis, for a term to expire on August 31, 2001. Manufacturing support is performed in customer facilities.

The Company also owns a 9,900 square foot building located in Heerde, The Netherlands. This facility is expected to provide adequate space for the Company's assembly operations for its furnace line for the foreseeable future.

The Company subleases a 21,740 square foot building located in Carlisle, Pennsylvania from John R. Krieger, the president of P.R. Hoffman and the former owner of that business. These facilities are leased at a current rate of $10,755 per month, on a triple net basis, for a term to expire on August 31, 1999. The Company has the option to renew the lease for two successive terms of one year each.

The Company considers the above facilities suitable and adequate to meet the Company's requirements.

ITEM 3. LEGAL PROCEEDINGS

None.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

None.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDERS' MATTERS

MARKET INFORMATION

The Company's common stock is traded in the over-the-counter market and is quoted under the symbol "ASYS" in the automated quotation system of the National Association of Securities Dealers Small Cap Market ("NASDAQ").

The following table sets forth the range of the high and low bid price for the shares of the Company's common stock for each quarter of fiscal years 1998 and 1997 as reported by the NASDAQ Small Cap Market.

QUARTER ENDED	HIGH	LOW
Fiscal 1998:		
December 31, 1997	$ 3.81	$ 2.00
March 31, 1998	3.00	1.63
June 30, 1998	2.63	1.13
September 30, 1998	1.34	.50
Fiscal 1997:		
December 31, 1996	$ 4.75	$ 2.38
March 31, 1997	4.00	2.00
June 30, 1997	3.63	2.00
September 30, 1997	3.50	2.50

In order to maintain listing of its common stock on the Nasdaq SmallCap Market, the Company is required to satisfy certain quantitative and qualitative requirements. On September 22, 1998, the Nasdaq Stock Market, Inc. notified the Company that it was out of compliance with the requirement to maintain a minimum bid price of its common stock of $1.00 per share. The Company has requested a written hearing in order to seek an extension of time for meeting this requirement. If approved by the Company's shareholders at its 1999 Annual Meeting of Shareholders, the Company intends to effect a reverse stock split of its outstanding shares of common stock in order to, among other things, increase the minimum per share bid price of its common stock sufficiently to satisfy the $1.00 requirement. If, however, the Nasdaq does not grant an extension or the Company's common stock fails to satisfy the minimum bid requirement for ten or more consecutive trading days prior to the extended date, the common stock will be delisted from the Nasdaq SmallCap Market.

HOLDERS

As of December 3, 1998, there were approximately 1,479 shareholders of record of the Company's common stock.

DIVIDENDS

The Company has never paid dividends. Its present policy is to apply cash to investment in product development, acquisition or expansion; consequently, it does not expect to pay dividends within the foreseeable future.

ITEM 6. SELECTED FINANCIAL DATA

The selected financial data set forth with respect to the Company's operations for each of the years in the three year period ended September 30, 1998 and with respect to the balance sheets at September 30, 1998 and 1997 are derived from audited financial statements that have been audited by Arthur Andersen LLP, independent public accountants, which are included elsewhere in this Report and are qualified by reference to such financial statements. Data from the statements of operations for the fiscal years ended September 30, 1995 and 1994 and the balance sheet data at September 30, 1996, 1995 and 1994 are derived from financial statements not included in this Report. The selected financial data should be read in conjunction with Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, and the Company's Financial Statements (including the related notes thereto) contained elsewhere in this Report.

<TABLE>
<CAPTION>

	FISCAL YEARS ENDED SEPTEMBER 30,				
	1998	1997	1996	1995	1994
<S>	<C>	<C>	<C>	<C>	<C>
OPERATING DATA:					
From Continuing Operations:					

Revenues	$16,213,904	$11,111,142	$8,414,005	$6,864,068	$ 4,331,079
Operating Profit (Loss)(1)(6)	(904,334)	215,420	120,813	39,582	(172,648)
Income (Loss) from Continuing Operations(1)(6)	(589,887)	237,709	197,591	171,053	(89,469)
Net Income (Loss)(1)(5)(6)	$ (589,887)	$ 237,709	$ 508,683	$ 226,568	$ 94,004
Basic Earnings (Loss) Per Share: (1)(2)(3)(6)					
Continuing Operations (Loss)	$ (.14)	$ .06	$ .05	$ .04	$ (.05)
Net Income (Loss) (5)	$ (.14)	$ .06	$ .12	$ .06	$ .05
BALANCE SHEET DATA:					
Cash and Short-Term Investments	$ 1,351,542	$ 1,975,040	$4,458,337	$4,505,389	$ 1,080,976
Working Capital	4,993,455	5,271,320	5,480,452	6,163,304	2,244,628
Total Assets	9,325,479	9,355,092	8,458,614	8,365,519	3,974,922
Total Current Liabilities	2,530,723	2,108,165	1,568,994	1,363,291	852,103
Long-Term Obligations	347,667	318,721	265,355	--	--
Accumulated Deficit	(764,265)	(174,378)	(412,087)	(920,770)	(1,147,338)
Shareholders' Equity(2)(4)	6,447,089	6,928,206	6,624,265	7,002,228	3,122,819

</TABLE>

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(1) The results for the fiscal years 1998, 1997, 1996 and 1994 include approximately $170,000, $85,000, $132,000 and $355,000, respectively, expensed for amounts paid or payable to the university under the Research Agreement described elsewhere herein. In addition, in fiscal 1998 the Company took a charge of $184,000 for the write-off of certain long lived assets.

(2) The results shown have been restated to reflect the two-for-one forward split of common stock which was effective March 29, 1996. Earnings per share for 1998, 1997, 1996 and 1995 reflect the sale of 2,415,000 shares in a public offering completed December 22, 1994.

(3) The results shown would be the same if they were prepared on a diluted basis, except that the net income per common share would have been $.05 for the fiscal year ended September 30, 1997 and $.10 for the fiscal year ended September 30, 1996.

(4) The decline in Shareholders' Equity in 1996 resulted from the Company's receipt of 196,034 shares of its common stock upon disposition of the stock of Echelon Services Company, as further detailed in the Consolidated Statements of Stockholders' Equity, included in the consolidated financial statements.

(5) The results for fiscal 1996 include a $284,335 gain on the disposal of discontinued operations.

(6) Income from continuing operations for fiscal 1997 include a $115,487 gain from the disposition of the Company's interest in the Seil Semicon joint venture.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion should be read in conjunction with the financial statements and notes thereto set forth elsewhere herein and the "Forward-Looking Statements" explanation included herein.

PLANS FOR EXPANSION AND CAPITAL RESOURCES

The Company is engaged primarily in the manufacture and marketing of several items of capital equipment, spare parts and related consumables used by customers in the fabrication of semiconductor chips and semiconductor silicon wafers from which such chips are made. Some of these products, amounting to an estimated 13% of consolidated sales in fiscal 1998 and 6% in fiscal 1997, are also sold for use in the production of optics, wireless communications, memory disk media, ceramics and other products. The Company also provides contract semiconductor manufacturing support services, accounting for an estimated 6% and 1% of consolidated sales in fiscal 1998 and 1997, respectively. The Company intends to focus on expanding its revenue and operating profits derived from sale of such equipment and related consumable products sold to semiconductor fabricators and manufacturers of silicon wafers used in the fabrication of such semiconductors. The Company is seeking to expand its revenue and operating profits through the development of new products that serve these markets and to further penetrate these markets with existing and new products. The Company has temporarily placed a lower priority on the addition of new products or services through acquisitions as a result of the depressed market price for the Company's common stock and the lack of available funds sufficient to complete a significant acquisition. That was not the case in fiscal 1997 and the first half of fiscal 1998.

ACQUISITIONS. As a part of the above strategy, the Company acquired substantially all of the assets and assumed certain of the related liabilities of P.R. Hoffman Machine Products Corporation on July 1, 1997. The total cost of

the acquisition, including the liabilities assumed and related transaction costs, was $3,192,000. See Note 3 to the Consolidated Financial Statements, included herein, for further details of the acquisition and pro forma revenues and earnings for fiscal 1996 and 1997, reflecting the assumption that the acquisition had occurred at the beginning of each such fiscal year. During calendar year 1996, the operations acquired produced $6.6 million of revenue and $609,023 of operating profit. Due to the slow-down in the semiconductor industry, fiscal 1998 revenue and operating profit (before corporate allocation) derived from the P.R. Hoffman operations, declined to $5,948,000 and $469,000, respectively.

During the fourth quarter of fiscal 1997, the Company began providing contract semiconductor manufacturing support services. Although this operation currently serves only one customer, its fiscal 1998 revenue is $906,000 and it is making a positive contribution to operating profit. In the event the Company does not obtain new customers for these services in fiscal 1999, the Company expects revenue from these services to decline due to a decrease in the contract services to be provided to the sole customer.

During fiscal 1996, the Company entered into a joint venture agreement pursuant to which it acquired a 45% ownership interest and a 50% voting interest in Seil Semicon, Inc. (the "Korean Joint Venture") in return for a commitment to invest $500,000 in cash. The purpose of the joint venture was to develop and operate a silicon test wafer reclaiming business. After the end of fiscal 1996, the Company sold its interest in the joint venture for $478,000, because management determined that increasing the Company's investment commitment to $3 million, without obtaining majority control, was more risk than was appropriate for the Company. See Note 11 to the Consolidated Financial Statements, included herein. As a result, the Company recorded a gain in fiscal 1997 of $115,487, largely representing recovery of related costs and expenses recorded in the previous year.

While the Company participated in the Korean Joint Venture in calendar year 1996 and acquired P.R. Hoffman on July 1, 1997, the Company shifted its focus to internal product development in June 1998. The Company intends to again emphasize acquisitions if and when the market for the Company's common stock has recovered or it has other capital resources in excess of its operating requirements. Should the Company return to its acquisition strategy, it will evaluate potential product or business acquisitions that may complement the Company's existing business. Based upon the Company's acquisition criteria, such an acquisition could require $4 million or more of capital resources. The determination of the appropriateness of a potential acquisition is expected to take into consideration many factors, including the status and potential capital requirements for resuming the photo-assisted CVD research project (described below), the economic terms of the acquisition under review, and the potential synergy of the acquired business with the Company's existing business. However, due to the slowdown in the semiconductor industry, the amount of time it takes to bring new products to the market, and the low market price of the Company's common stock, the Company believes sales will decline slightly in fiscal 1999, with a pattern of new growth commencing in fiscal 2000.

RESEARCH AND DEVELOPMENT. Prior to fiscal 1994, the Company generally made small investments in product development, relative to most technology businesses. The Company increased research and product development expenditures in fiscal 1994 by $257,000, primarily through the expenditure of $355,000 for photo-assisted CVD research conducted by the University of California at Santa Cruz (the "University"). The Company's aggregate expenditures on photo-assisted CVD development from fiscal 1994 through September 30, 1998 were $743,000. This research has proven that the Company's patented method solves the problem of deposited materials obstructing the ultra-violet ("UV") light source used for activating the desired chemical reactions. However, this project has not resulted in the development of a photo-assisted CVD machine with a commercially acceptable rate of deposition, because lamps with sufficient intensity of UV light are not yet available. The latter problem coupled with the general

slowdown in the semiconductor industry has resulted in the Company indefinitely suspending work on the project effective September 30, 1998, until such time as success appears more certain. Before the suspension, fiscal 1998 expenditures to the University were $170,000, an increase of $85,000 over fiscal 1997.

During fiscal 1996, research and development costs consisted of developing the new Tempress line of furnaces, an automated robot to load cantilever paddle systems and product improvements. In addition, the Company expended $268,000 and $196,000 in fiscal 1998 and 1997, respectively, on research and development for the improvement and development of diffusion products and will continue to make these types of expenditures in the foreseeable future. The Company has budgeted $158,000 for development of new products and improvements to existing products in fiscal 1999. The Company may approve other projects of that nature, depending on their merit and its anticipated effect on earnings. Any expenditure on the development of non-diffusion products and services, if any, will also negatively impact the

Company's future operating results until the project achieves profitability.

The Company's currently available cash and short-term investments are expected to be sufficient to service the inter-period liquidity requirements of the already expanded operations of the Company. Therefore, any funds required for significant unplanned development of new products and services being considered are expected to be obtained from one or more sources of financing, such as working capital or term loans from banks or other financial institutions, equipment leasing, mortgage financing and internally generated cash flow from operations. There is no assurance of the availability or sufficiency of these or any other source of funding.

RESULTS OF OPERATIONS

FISCAL 1998 COMPARED TO FISCAL 1997

REVENUES. The consolidated revenues increased by $5,103,000, or forty-six percent (46%), to $16,214,000 in fiscal 1998 from $11,111,000 in fiscal 1997. During the same period, operating income decreased by $1,119,000 from $215,000 in fiscal 1997 to an operating loss of $904,000 in fiscal 1998. Revenue derived from the P.R. Hoffman operations and the Company's new manufacturing support services accounted for substantially all of the increase in consolidated revenue and resulted in a $554,000 increase in operating profit, before corporate allocations, compared to the fourth quarter of fiscal 1997.

GROSS MARGINS. Revenue from the sale of existing diffusion products increased by $23,000, or less than one percent, to $9,361,000, while the gross margin from these products decreased by $813,000, or 28%. As a result of the cyclical downturn the anticipated increase in sales from diffusion products did not materialize. The gross margin as a percentage of diffusion product sales declined to 23% in fiscal 1998 from 31% in fiscal 1997, as a result of increased labor and overhead costs, price competition and product mix. The increases in labor and overhead costs were made in anticipation of increased sales of diffusion products, which did not materialize. The industry slowdown also increased the amount of price competition experienced during fiscal 1998.

Finally, the addition of conveyor furnaces to the Company's diffusion product line resulted in higher costs because of the short delivery schedule for such products, as well as higher re-work costs associated with adding a product not previously manufactured. Overall, the gross margin from consolidated sales increased by $624,000, or 18%, as a result of the P.R. Hoffman operations and manufacturing support services contributing to all four quarters of fiscal 1998, compared to one quarter's gross margin in fiscal 1997. As a percentage of sales, the consolidated gross margin was 26% of sales in fiscal 1998, compared to 32% in fiscal 1997. The operations that were new in fiscal 1997 had lower gross margins as a percent of sales in fiscal 1998 as compared to fiscal 1997, contributing further to the decline in the consolidated gross margin percentages.

SELLING AND GENERAL EXPENSES. Consolidated expenses increased by $1,471,000, or 47%, to $4,610,000 in fiscal 1998, from $3,139,000 in fiscal 1997. Expenses attributable to the P.R. Hoffman operations and manufacturing support services directly contributed $884,000 of that increase. That portion of the increase in selling and general expenses was related to those operations being included in the consolidated operating results for four quarters in fiscal 1998 compared to one quarter in fiscal 1997. The selling and general expenses of the diffusion operation and corporate expenses increased $587,000 as a result of the following factors: (i) the addition of personnel and other costs in anticipation of higher revenues; (ii) incurrence of expenses related to acquisition research activities, particularly before the industry slowdown affected operations; and (iii) a charge of $184,000 taken by the Company for the write-off of a demonstration unit that is no longer suitable for tradeshows. Despite these increases, consolidated selling and general expenses remained a constant 28% of revenue. Research and development expenses are discussed separately above.

OPERATING PROFIT (LOSS). Primarily as a result of the cyclical downturn in the semiconductor equipment industry and other factors discussed above, the Company had an operating loss of $904,000 in fiscal 1998 compared to an operating profit of $215,000 in fiscal 1997. Income (loss) from continuing operations before income taxes includes operating income (loss), discussed above, and net interest income. Net interest income was $108,000 lower in fiscal 1998, as compared to fiscal 1997, due to cash used in the acquisition of P.R. Hoffman and for increased inventories and furniture and equipment purchases associated with the expansion of the Company's diffusion furnace product line. As a result of these items, income from continuing operations before income taxes decreased by $1,228,000 to a loss of $850,000 in fiscal 1998.

NET INCOME (LOSS). As a result of the Company's net loss, the Company recognized an income tax benefit of $260,000 in fiscal 1998, compared to the fiscal 1997 provision for income taxes of $140,000. The effective tax rate for fiscal 1998 is 31%, which is lower than the 34% statutory rate due to the provision for state income taxes on the Company's new operations and services

and items that are not deductible for federal income taxes. The effective rate for fiscal 1997 was 37%, 3% higher than the statutory rate, due to the same items as in fiscal 1998. See Note 4 to the Consolidated Financial Statements for further details including an analysis of the differences between the statutory rate and the effective rate for fiscal 1998 and 1997. After taking into consideration the provision for (benefit from) income taxes, the fiscal 1998 net loss is $590,000, or $(.14) per share, compared to net income of $238,000, or $.06 per share, in fiscal 1997.

TRENDS. As a result of the industry slowdown, consolidated revenue for the second half of fiscal 1998, $14,829,000 on an annualized basis, was substantially lower than the $17,599,000 of annualized revenue in the first half of the fiscal year. Sales for fiscal 1999 are not expected to recover from the industry downturn experienced in the second half of fiscal 1998. The Company believes that there are no significant signs of improvement in the industry. Furthermore, even if the Company is successful in adding new products, it will not occur soon enough to have a significant effect on the full year results.

The fiscal 1998 net losses were all incurred in the third ($185,000) and fourth ($707,000) fiscal quarters. In addition, the Company's sole customer for semiconductor manufacturing support services has requirements for fiscal 1999 that are approximately 50% less than in fiscal 1998. However, as a result of reductions in the number of employees at all three of the Company's operations based in the United States and other cost reducing actions taken during the fourth quarter of fiscal 1998, the consolidated net loss for the first quarter of fiscal 1999 is expected to be somewhere between the net losses of the two preceding quarters. During the first quarter of fiscal 1999, the Company cut costs further in order to reach a cash-flow break-even in the last three quarters of fiscal 1999, although no assurance can be made that such measures will prove effective.

The Company's diffusion product line has been and will continue to be affected by industry trends. The use and installed base of vertical furnaces is increasing throughout the industry on a worldwide basis, particularly for the fabrication of leading edge semiconductor devices, and each year it is expected to increase in usage to and eventually surpass that of horizontal furnaces. However, the Company believes that there will continue to be demand for horizontal diffusion furnaces, notwithstanding other advantages of vertical systems (e.g. the capability to produce more sophisticated semiconductors more efficiently through more advanced automation), because generally production runs, other than those for high volume production of small chips on larger wafers, are more efficiently produced in horizontal furnaces as compared to vertical furnaces. Due to the industry slowdown, manufacturers of vertical furnaces have more aggressively pursued the sale of their horizontal furnaces, which compete with those of the company, resulting in the erosion of selling prices and gross margins.

The Company's products may be used to upgrade, retro-fit or replace existing horizontal furnaces in order to extend their useful lives or otherwise avoid the necessity for the customer to acquire more expensive vertical furnaces. Horizontal furnaces are also sold for use in new facilities that do not require vertical furnaces for the particular process. Another important factor is the growth of semiconductor manufacturing using the less capital-intensive horizontal diffusion furnaces in the manufacturer of solar cells, and for other less demanding processes, which could further prolong the commercial life of the Company's diffusion products.

The market for the Company's products remains a small niche market. Thus future revenues are and will continue to be dependent upon the introduction or acquisition of new products. Examples include the IBAL automation products introduced from fiscal 1991 to fiscal 1993, or improved versions of products that exist in the market, such as the Tempress(R) horizontal diffusion furnaces, conveyor ovens and "clean room" load stations. The Company intends to pursue both types of product introductions in the future. Product or business

acquisitions are also a part of the Company's strategy for growth, as evidenced by the acquisition of P.R. Hoffman's product line of double sided precision lapping and polishing machines and related consumable products in the fourth quarter of fiscal 1997. The Company intends to again pursue acquisitions of other businesses or products that complement its existing product lines, but recognizes that its ability to do so is dependent upon a higher market price for the Company's common stock and/or the availability of other sources of capital.

As of December 15, 1998, memory device manufacturers are experiencing stability and even increases in the price for their products. However, since there remains ample capacity for the manufacture of all semiconductors, this has not translated into an improvement for the semiconductor production equipment market in which the Company competes. Management currently believes that the lag between the improvement in the market for semiconductors and that for semiconductor equipment is approximately one year. However, it is anticipated that improvement in the sales of the Company's consumable and replacement parts

will precede the improvement in equipment sales. Turmoil in the Asian financial markets is expected to continue to significantly depress capital equipment sales into that region. As expected, sales into the Asian market declined to 8% of the Company's total sales in fiscal 1998, down from 27% in fiscal 1997. These negative factors have a greater impact on the higher margin Atmoscan(R) and IBAL automation products than on diffusion furnace sales. The reason for the difference is that the Atmoscan and IBAL products are more likely to be viewed as discretionary as opposed to diffusion furnaces which are integral to a customer's operations. The Company's products are sold on a worldwide basis and therefore, the Company will attempt to offset the sales declines caused by the above factors by focusing more attention on other regions of the world.

FISCAL 1997 COMPARED TO FISCAL 1996

The consolidated revenues of the semiconductor equipment business increased $2,697,000, or thirty-two percent (32%), to $11,111,000 in fiscal 1997 from $8,414,000 in fiscal 1996. During the same period, operating income increased seventy-eight percent (78%), or $94,000, from $121,000 in fiscal 1996 to $215,000 in fiscal 1997. The acquisition and start-up businesses discussed above accounted for sixty-six percent (66%) of the increase in revenue and more than all of the increase in operating profit, despite their inclusion for only the fourth quarter of fiscal 1997.

Revenue from the sale of existing diffusion products increased $923,000, or eleven percent (11%), to $9,337,000, and accounted for thirty-four percent (34%) of the increase in consolidated revenue. Growth in diffusion product revenue resulted primarily from continued expansion of The Netherlands operation, where the Tempress(R) diffusion furnaces are manufactured. The growth in gross margins resulting from the increase in diffusion product sales was not sufficient to offset the $435,000 increase in the related selling, general and administrative expenses. Further, expanded furnace sales, which typically produce a lower gross margin, were partially offset by a decline in the typically more profitable automation products, thereby producing an unfavorable mix. The gain on the disposal of the Korean Joint Venture described above partially compensated for the decrease in consolidated operating profit for the diffusion product line.

Income (loss) from continuing operations before income taxes includes operating income (loss), discussed above, and net interest income. Net interest income was $64,000 lower in fiscal 1997, as compared to fiscal 1996, due to cash used in the acquisition of P.R. Hoffman and for increased inventories and receivables associated with the expansion of the diffusion product line. As a result of these items, the income from continuing operations before income taxes improved by $30,000, or 9%, to $378,000 in fiscal 1997.

The income tax provision is $140,000 in fiscal 1997 and $150,000 in fiscal 1996. The effective tax rate for fiscal 1996 is higher than the statutory rate and the effective rate of fiscal 1997, because the equity in the losses of the Korean Joint Venture were not deductible for U.S. income tax purposes in fiscal 1996, when incurred, but were deductible upon disposition of that investment. See Note 4 to the consolidated financial statements for further details including an analysis of the differences between the statutory rate and the effective rate for fiscal 1997 and 1996. After taking into consideration the provision for income taxes, income from continuing operations is $238,000, $.06 per share, for fiscal 1997, a 20% improvement over the income of $198,000, or $.05 per share, in fiscal 1996.

For fiscal 1997, net income is equal to income from continuing operations, $238,000, or $.06 per share. The non-recurring $284,000 gain in fiscal 1996 from the disposal of discontinued operations and $27,000 of income before disposition of that operation, brought net income for fiscal 1996 to $509,000, or $.10 per share.

LIQUIDITY AND FINANCIAL CONDITION

As of September 30, 1998 and 1997, cash, cash equivalents and short-term investments amounted to $1,352,000 and $1,975,000, respectively. The fiscal 1998 decrease in cash and cash equivalents of $623,000, resulted from the $310,000 of cash used in operations, primarily for the financing of inventories and $313,000 for purchases of property and equipment. While the Company expects to make up to $270,000 of capital expenditures during fiscal 1999, and up to $190,000 for research and development, actual expenditures will be made in light of the expected benefits and the existing operating climate. As a result of the above, the Company believes there is sufficient liquidity for current operations. However, see "Plans for Expansion and Capital Resources," above, for an explanation of factors that would give rise to requirements for additional sources of liquidity and capital resources, and possible sources of such to meet those needs.

Working capital decreased by $278,000 to $4,993,000 at September 30, 1998, from $5,271,000, a decrease of 5%, primarily as a result of expending working capital on the purchase of property and equipment. For the same reasons, the ratio of current assets to current liabilities increased to 3.0:1 from

3.5:1. Cash and short-term investments comprise 14% of total assets and stockholders' equity accounts for 69% of total assets. These are measures of financial condition. The Company believes that despite the recent losses, it continues to posses the financially strength to plan future growth while surviving the current industry slowdown.

YEAR 2000 COMPLIANCE

Many currently installed computer systems and software products are coded to accept two digit entries in the date code field. These date code fields will need to accept four digit entries to distinguish 21st century dates from 20th century dates. Any programs that have time-sensitive software may recognize a date using "00" as the year 1900 rather than the year 2000. This could result in the computer shutting down or performing incorrect computations. As a result, in a little over one year, computer systems and software used by many companies may need to be upgraded to comply with such "Year 2000" requirements. Certain of the Company's systems, including information and computer systems and automated equipment, will be affected by the Year 2000 issue.

The Company is in the process of identifying the programs, infrastructure, and products that could be affected by the Year 2000 issue and is developing an implementation plan to resolve the problem on a timely basis. Based on a preliminary, informal review of the hardware and software components of its systems and products, the Company anticipates that the plan will not require it to devote a considerable amount of internal resources or otherwise hire substantial external resources to assist with the implementation of such plan. The Company expects that the costs to be incurred by it to deal with this issue will be not be material, as many of the issues were resolved before the end of fiscal 1998, through installation of regular software updates provided by licensors under standard maintenance agreements. The Company does not anticipate that any problems encountered by suppliers and vendors in connection with the Year 2000 will have a material adverse effect on the Company's financial condition and results of operations.

EURO CONVERSION

Effective January 1, 1999, the European Monetary Union (the "Union") will result in the issuance of a single currency (the "euro") for use in participating countries, including The Netherlands, where one of the Company's operations is based. See Note 7 to the Consolidated Financial Statements. The Company has assessed the effects of the change to a single currency within the Union, including the need to modify certain computer systems. The Company's expenditures for Euro conversion projects were immaterial in fiscal 1998 and are expected to be immaterial in fiscal years 1999 and 2000.

FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains certain forward-looking statements. The forward-looking statements contained herein are based on current expectations that involve a number of risks and uncertainties. Among others, these forward-looking statements are based on assumptions that (a) the Company will not lose a significant customer or customers, (b) the Company will not experience significant further reductions in demand or rescheduling of customer purchase orders that have occurred recently due to equipment buyers' caution resulting from over-capacity for the production of semiconductor chips, (c) that the Company's products will remain accepted within their respective markets and will not be significantly further replaced by newer technology equipment, (d) that competitive conditions within the Company's markets will not materially deteriorate further, (e) that the Company efforts to integrate its P.R. Hoffman subsidiary will continue to progress, (f) that the Company's efforts to improve its products and maintain its competitiveness in the markets it competes will continue to progress and that the savings associated with these expenditures and/or the increased product demand resulting therefrom justifies these

development costs, (g) that the Company will be able to retain, and when needed, add key technical and management personnel, (h) that business or product acquisitions, if any, will be successfully integrated and the results of operations therefrom will support the acquisition price, (i) that the Company's forecasts will accurately anticipate market demand, (j) that there will be no material adverse changes in the Company's exiting operations, (k) that the Company's plan for a reverse stock split will be approved by shareholders and will enable the Company to avoid the de-listing of its common stock by the NASDAQ Small-Cap Market, (l) the Company will be able to obtain sufficient equity or debt funding to increase its capital resources by the amount needed for new business or product acquisitions, if any, (m) the semiconductor equipment industry will recover from the current slowdown, (n) the turmoil in the Asian markets will not spread to other geographic regions or further deteriorate, (o) the Company has or will be able to reduce costs sufficiently to avoid using a substantial portion of its current liquidity to fund losses, (p) there will be no material Year 2000 issues and (q) that demand for the Company's products will not be adversely and significantly influenced by trends within the

semiconductor industries, including consolidation of semiconductor manufacturing operations through mergers and the subcontracting out of the production of semiconductors to foundries. Assumptions related to the foregoing involve judgments with respect to, among other things, future economic, competitive and market conditions, and future business decisions, all of which are beyond the control of the Company. Although the Company believes that the assumptions underlying the forward-looking statements are reasonable, any of the assumptions could prove inaccurate and, therefore, there can be no assurance that the results contemplated in forward-looking statements will be realized. In addition, the business and operations of the Company are subject to substantial risks, which increase the uncertainty inherent in such forward-looking statements. In light of the significant uncertainties inherent in the forward-looking information included herein, the inclusion of such information should not be regarded as a representation by the Company, or any other person, that the objectives or plans for the Company will be achieved.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

INDEX

All Schedules, other than the Schedule listed above, are omitted as the information is not required, is not material or is otherwise furnished.

REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To AMTECH SYSTEMS, INC.:

We have audited the accompanying consolidated balance sheets of AMTECH SYSTEMS, INC. (an Arizona corporation) and subsidiaries as of September 30, 1998 and 1997, and the related consolidated statements of operations, stockholders' equity and cash flows for each of the three years in the period ended September 30, 1998. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. 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 financial position of AMTECH SYSTEMS, INC. and subsidiaries as of September 30, 1998 and 1997, and the results of their operations and cash flows for each of the three years in the period ended September 30, 1998, in conformity with generally accepted accounting principles.

Our audits were made for the purpose of forming an opinion on the basic

financial statements taken as a whole. The schedule listed in the index of financial statements and supplementary data is presented for purposes of complying with the Securities and Exchange Commission's rules and is not a required part of the basic financial statements. This schedule has been subjected to the auditing procedures applied in our audits of the basic financial statements and, in our opinion, fairly states in all material respects the financial data required to be set forth therein in relation to the basic financial statements taken as a whole.

ARTHUR ANDERSEN LLP

Phoenix, Arizona,
December 14, 1998.

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
September 30, 1998 and 1997

	1998	1997
ASSETS		
CURRENT ASSETS:		
Cash and equivalents (Note 2)	$1,351,542	$1,395,849
Short-term investments (Note 2)	--	579,191
Accounts receivable, less allowance for doubtful accounts of $143,000 in 1998 and $130,000 in 1997 (Note 6)	2,894,217	2,983,573
Inventories (Note 2)	2,393,708	2,062,052
Deferred income taxes (Notes 2 and 10)	393,000	273,000
Income taxes refundable (Notes 2 and 10)	404,000	--
Prepaid expenses	87,711	85,820
Total current assets	7,524,178	7,379,485
PROPERTY, PLANT AND EQUIPMENT (Note 2):		
Land, building and leasehold improvements (Note 4)	610,507	629,604
Equipment and machinery	935,280	785,142
Furniture and fixtures	498,634	726,365
	2,044,421	2,141,111
Less accumulated depreciation and amortization	(801,405)	(781,078)
	1,243,016	1,360,033
PURCHASE PRICE IN EXCESS OF NET ASSETS ACQUIRED AND OTHER ASSETS, net of accumulated amortization of $237,000 in 1998 and $200,000 in 1997 (Notes 2 and 3)	558,285	615,574
	$9,325,479	$9,355,092
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable	$1,229,451	$ 935,338
Accrued compensation and related taxes	573,294	541,916
Accrued warranty expense (Note 2)	166,839	200,670
Accrued installation expense	183,909	169,199
Customer deposits	249,795	--
Other accrued liabilities	127,435	138,042
Income taxes payable (Notes 2 and 10)	--	123,000
Total current liabilities	2,530,723	2,108,165
LONG-TERM OBLIGATIONS (Note 4)	347,667	318,721
COMMITMENTS AND CONTINGENCIES (Notes 3, 5, 8 and 9)		
STOCKHOLDERS' EQUITY (Notes 2 and 12):		
Preferred stock; no specified terms; 100,000,000 shares authorized; none issued	--	--
Common stock; $.01 par value; 100,000,000 shares authorized; 4,220,606 (4,185,106 in 1997) shares		

issued and outstanding	42,206	41,850
Additional paid-in capital	7,385,486	7,345,187
Cumulative foreign currency translation adjustment	(216,338)	(284,453)
Accumulated deficit	(764,265)	(174,378)
Total stockholders' equity	6,447,089	6,928,206
	$9,325,479	$9,355,092

The accompanying notes are an integral part of these consolidated balance sheets.

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
For The Years Ended September 30, 1998, 1997 and 1996

	1998	1997	1996
Net product sales (Note 6)	$16,213,904	$11,111,142	$8,414,005
Cost of product sales	12,069,780	7,591,347	5,516,936
Gross margin	4,144,124	3,519,795	2,897,069
Selling, general and administrative (Note 2)	4,610,238	3,139,366	2,386,466
Equity in (income) losses of Korean joint venture (Note 13)	--	(115,487)	65,063
Photo-CVD project (Notes 2 and 5)	170,306	84,883	132,243
Other research and development (Notes 2 and 5)	267,914	195,613	192,484
Operating profit (loss)	(904,334)	215,420	120,813
Interest income-net	54,447	162,289	226,778
Income (loss) from continuing operations before income taxes	(849,887)	377,709	347,591
Income tax provision (benefit) (Notes 2 and 10)	(260,000)	140,000	150,000
INCOME (LOSS) FROM CONTINUING OPERATIONS	(589,887)	237,709	197,591
DISCONTINUED OPERATIONS:			
Income From Discontinued Operations (Note 14)	--	--	26,757
Gain on Disposal of Echelon (Notes 10 and 14)	--	--	284,335
	--	--	311,092
NET INCOME (LOSS)	$ (589,887)	$ 237,709	$ 508,683
BASIC EARNINGS (LOSS) PER SHARE (Notes 2, 11 and 12):			
Income (Loss) From Continuing Operations	$ (.14)	$ .06	$ .05
Net Income (Loss)	$ (.14)	$ .06	$ .12
Weighted average shares outstanding	4,213,482	4,168,111	4,175,728
DILUTED EARNINGS (LOSS) PER SHARE (Notes 2, 11 and 12):			
Income (Loss) From Continuing Operations	$ (.14)	$ .05	$ .04
Net Income (Loss)	$ (.14)	$ .05	$ .10
Weighted average shares outstanding	4,213,482	4,697,942	5,343,606

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

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
For The Years Ended September 30, 1998, 1997 and 1996

	Common Stock Number of Shares	Common Stock Amount	Additional Paid-In Capital	Cumulative Foreign Currency Translation Adjustment	Accumulated Deficit	Total Stockholders' Equity
BALANCE AT SEPTEMBER 30, 1995	4,305,702	$43,057	$7,850,482	$ 29,459	$(920,770)	$ 7,002,228
Net Income	--	--	--	--	508,683	508,683
Shares returned upon disposition of Echelon	(196,034)	(1,960)	(806,679)	--	--	(808,639)

Translation adjustment	--	--	--	(78,007)	--	(78,007)
BALANCE AT SEPTEMBER 30, 1996	4,109,668	41,097	7,043,803	(48,548)	(412,087)	6,624,265
Net income	--	--	--	--	237,709	237,709
Employee stock bonus	16,050	160	34,577	--	--	34,737
Stock options exercised	27,000	270	34,930	--	--	35,200
Shares and warrants issued in connection with the acquisition ofP.R. Hoffman assets (Note 3)	32,388	323	231,877	--	--	232,200
Translation adjustment	--	--	--	(235,905)	--	(235,905)
BALANCE AT SEPTEMBER 30, 1997	4,185,106	41,850	7,345,187	(284,453)	(174,378)	6,928,206
Net loss	--	--	--	--	(589,887)	(589,887)
Employee stock bonus	17,500	176	24,229	--	--	24,405
Stock options exercised	18,000	180	16,070	--	--	16,250
Translation adjustment	--	--	--	68,115	--	68,115
BALANCE AT SEPTEMBER 30, 1998	4,220,606	$42,206	$7,385,486	$(216,338)	$(764,265)	$ 6,447,089

</TABLE>

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

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
For The Years Ended September 30. 1998, 1997 and 1996

<TABLE>
<CAPTION>

	1998	1997	1996
<S>	<C>	<C>	<C>
OPERATING ACTIVITIES:			
Net income (loss)	$ (589,887)	$ 237,709	$ 508,683
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Depreciation and amortization	361,046	233,938	179,289
Inventory and accounts receivable write-offs	135,642	76,123	91,085
Gain on disposal of discontinued operations	--	--	(284,335)
Loss (gain) on disposals of long-lived assets	183,872	592	(1,950)
Equity in (income) losses of Korean joint venture	--	(115,487)	65,063
Deferred income taxes	(120,000)	(50,000)	(70,000)
(Increase) decrease in:			
Accounts receivable	160,719	(401,561)	212,067
Inventories, prepaids and other assets	(429,450)	(421,270)	(284,872)
Increase (decrease) in:			
Accounts payable	240,963	191,544	160,152
Accrued liabilities	269,048	222,828	254,814
Income taxes payable/refundable	(522,059)	(21,000)	(81,000)
Net cash Provided by (Used In) Operating Activities	(310,106)	(46,584)	748,996
INVESTING ACTIVITIES:			
Maturities of short-term investments - net	579,191	1,884,929	1,207,449
Proceeds from disposition of (investment in) unconsolidated Korean joint venture	--	475,047	(425,000)
Proceeds from sale of assets	2,241	200	28,983
Purchases of property, plant and equipment	(313,203)	(236,852)	(541,919)
Cash paid for net assets of P. R. Hoffman Machine Products Corporation	--	(2,569,580)	--
Cash distributed in disposal of Echelon	--	--	(109,698)
Net Cash Provided by (Used in) Investing Activities	268,229	(446,256)	159,815
FINANCING ACTIVITIES:			
Proceeds from stock options exercised (Note 12)	16,250	35,200	--
Proceeds from (Payments on) mortgage loan	(12,069)	(19,635)	288,297
Net Cash Provided By Financing Activities	4,181	15,565	288,297
EFFECT OF EXCHANGE RATE CHANGES	(6,611)	(121,093)	(36,711)
CASH AND EQUIVALENTS (Note 2):			
Net increase (decrease)	(44,307)	(598,368)	1,160,397
Beginning of year	1,395,849	1,994,217	833,820
END OF YEAR CASH AND EQUIVALENTS	$1,351,542	$ 1,395,849	$1,994,217

	==========	==========	==========

</TABLE>

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

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS - CONTINUED
For The Years Ended September 30. 1998, 1997 and 1996

	1998	1997	1996
SUPPLEMENTAL CASH FLOW INFORMATION:			
Cash paid during the year for:			
Interest	$ 15,731	$ 19,855	$ 5,376
Income taxes, net of refunds	387,411	216,000	327,000
SUPPLEMENTAL SCHEDULE OF NON-CASH INVESTING AND FINANCING ACTIVITIES:			
Value received in the form of the Company's $.01 par value common stock in exchange for the net assets of Echelon Service Company (Note 14)	--	--	808,639

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

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEARS ENDED SEPTEMBER 30, 1998, 1997, AND 1996

(1) NATURE OF OPERATIONS:

Amtech Systems, Inc. (an Arizona corporation), P. R. Hoffman Machine Products, Inc., a wholly-owned subsidiary formed in July 1997 ("P. R. Hoffman"), both based in the United States, and Tempress Systems, Inc., a wholly-owned subsidiary formed in September 1994 and based in The Netherlands, comprise the "Company". The Company designs, assembles, sells and installs capital equipment and related consumables used in the manufacture of wafers of various materials, primarily silicon wafers for the semiconductor industry, and in certain semiconductor fabrication processes. These products are sold to manufacturers of silicon wafers and semiconductors worldwide, particularly in the United States, Korea, and Northern Europe. During fiscal 1997, the Company began providing semiconductor manufacturing support services. See Note 14 regarding discontinued operations.

One of the requirements for maintaining the listing of the Company's common stock on the NASDAQ Small-Cap Stock Market is that the bid price be at least $1.00 per share. The price of the Company's common stock has been trading below that price for several months. The Company has received notice from NASDAQ that the Company must respond to the notice or its stock will be de-listed. The Company has requested a hearing at which it will request time to remedy the situation. If necessary, the Company intends to effect a reverse split of the stock. While this strategy did remedy a similar situation in fiscal 1993, there can be no assurance that this strategy will again restore the market price to $1.00 or more or that such price will be maintained. The loss of it's NASDAQ Small-Cap listing could result in further deterioration of the market for the Company's common stock.

The Company serves a niche market in an industry which experiences rapid technological advances and which in the past has been very cyclical. Therefore, the Company's future profitability and growth depend on its ability to develop or acquire and market profitable new products and its ability to adapt to cyclical trends.

(2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

BASIS OF PRESENTATION - The accompanying consolidated financial statements include the accounts of Amtech Systems, Inc. and its wholly owned subsidiaries, including Echelon Service Company through the date of its disposition (Note 14), P. R. Hoffman Machine Products, Inc. since its acquisition date (Note 3) and Tempress Systems, Inc. All significant intercompany accounts and transactions have been eliminated in consolidation.

REVENUE RECOGNITION - Revenue is recognized on the accrual basis when the product is shipped and title passes to the customer.

CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS - Cash equivalents and short-term investments consist of time certificates of deposit and U.S. treasury bills. The Company considers certificates of deposit and treasury bills to be cash equivalents if their maturity is 90 days or less from date of purchase. Investments maturing in more than 90 days are

(2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES - (CONTINUED)

considered to be "available-for-sale" (as defined by Statement of Financial Accounting Standards (SFAS) No. 115) and are recorded at fair value, which approximates cost.

INVENTORIES - Inventories are stated at the lower of cost (first-in, first-out method) or market. The components of inventory as of September 30, 1998 and 1997 are as follows:

	1998	1997
Purchased parts	$1,174,570	$ 995,850
Work-in-progress	612,646	618,295
Finished Goods	606,492	447,907
	$2,393,708	$2,062,052

PROPERTY, PLANT AND EQUIPMENT - Maintenance and repairs are charged to expense as incurred. The costs of additions and improvements are capitalized. The cost of property retired or sold and the related accumulated depreciation are removed from the applicable accounts and any gain or loss is recognized. Depreciation expense for fiscal years 1998, 1997 and 1996 was approximately $273,000, $196,000 and $152,000, respectively.

Depreciation is computed using the straight-line method. Useful lives for equipment, machinery and leasehold improvements are from three to five years; for furniture and fixtures from five to ten years; and for buildings twenty years.

The Company has adopted SFAS No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed of." This standard requires that long-lived assets be reviewed for impairment whenever events or circumstances indicate that the carrying amount of the asset may not be recoverable. If the sum of the expected cash flows from an asset to be held and used in operations is less than the carrying value of the asset, an impairment loss is recognized. Adoption of this standard did not have a material effect on the Company's financial position or results of operation.

Due to model changes, the Company has reviewed a Tempress diffusion furnace built for use at tradeshows and determined that the net present value of future cash flows it can expect from this furnace is less than the carrying value of the asset. Accordingly, a loss of $184,028, the cost of the furnace less accumulated depreciation, is included in selling, general and administrative expense in fiscal 1998.

PURCHASE PRICE IN EXCESS OF NET ASSETS ACQUIRED - The purchase price in excess of net assets acquired, commonly referred to as goodwill, is being amortized over fifteen years using the straight-line method. Amortization expense for fiscal years 1998, 1997 and 1996 was approximately $44,000, $9,000 and $0, respectively.

(2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES - (CONTINUED)

WARRANTY - The Company generally provides free of charge a limited twelve-month warranty to all purchasers of its new products and systems. Current liabilities include approximately $167,000 and $201,000 for accrued warranty expense as of September 30, 1998 and 1997, respectively. Warranty expense for fiscal 1998, 1997 and 1996 amounted to approximately $240,000, $267,000 and $135,000, respectively. Management believes this amount is sufficient for all future warranty costs on systems sold through September 30, 1998.

RESEARCH AND DEVELOPMENT EXPENSES - The Company expenses product development costs as they are incurred. The Company incurred expenses of approximately $438,000 in 1998, $280,000 in 1997, and $325,000 in 1996, related to research of photo-assisted CVD (chemical vapor deposition) equipment and processes, the development of diffusion furnaces, and the improvement of IBAL

and other products.

FOREIGN CURRENCY TRANSACTIONS AND TRANSLATION - Financial information relating to the Company's foreign subsidiary is reported in accordance with SFAS No. 52, "Foreign Currency Translation". Income from continuing operations includes a loss from foreign currency transactions of $11,000 in 1998 and gains of $34,000 in 1997 and $56,000 in 1996. The functional currency of Tempress Systems, Inc. is The Netherlands guilder. The gains or losses resulting from the translation of the financial statements of the Company's foreign subsidiary have been included as a separate component of shareholders' equity.

INCOME TAXES - The Company files consolidated federal income tax returns and computes deferred income tax assets and liabilities based upon cumulative temporary differences between financial reporting and taxable income, carryforwards available and enacted tax law. See Notes 10 and 14.

EARNINGS PER COMMON SHARE - The Company has adopted SFAS No. 128, "Earnings Per Share." The new statement modifies the calculation of primary and fully diluted EPS and replaces them with basic and diluted EPS. All prior year earnings per share (EPS) data presented have been restated as required by SFAS No. 128. See Note 11.

STOCK-BASED COMPENSATION - The Company accounts for its stock-based compensation plans under Accounting Principles Board Opinion APB No. 25, under which no compensation cost is recognized. In October 1995, the Financial Accounting Standards Board ("FASB") issued SFAS No.123, "Accounting for Stock-Based Compensation." SFAS No.123 requires companies that account for stock-based compensation as prescribed by APB No. 25 to disclose the pro forma effects on earnings and earnings per share as if SFAS No. 123 had been adopted and certain other information with respect to stock compensation and the assumptions used to determine the pro forma effects of SFAS No. 123. See Note 12.

(2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES - (CONTINUED)

USE OF ESTIMATES - The preparation of financial statements in conformity with generally accepted accounting principles 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 year. Actual results could differ from those estimates.

FAIR VALUE OF FINANCIAL INSTRUMENTS - The carrying values of the Company's current assets and current liabilities approximate fair value due to the short-term in which these instruments mature. The carrying value of the Company's long-term debt approximates fair value because the interest rate of the mortgage note payable (Note 4) approximates prevailing interest rates for similar debt instruments.

ACCOUNTING PRONOUNCEMENTS NOT YET ADOPTED - In June 1997, the FASB issued SFAS No. 130, "Reporting Comprehensive Income," and SFAS No. 131, "Disclosures About Segments of an Enterprise and Related Information." SFAS No. 130 establishes standards for reporting and displaying of all changes in equity that result from transactions and other economic events occurring during the period, other than transactions with owners ("comprehensive income"), and requires companies to retroactively display the cumulative total of comprehensive income, other than net income for the period, as a separate component of equity in both interim and annual financial statements. SFAS No. 131 establishes a new model for interim and annual segment reporting, taking into consideration the way management organizes segments for making operating decisions and assessing segment performance. The Company is required to adopt these standards in fiscal 1999. Management has not assessed the effect of these standards on future disclosures.

(3) PURCHASE OF P. R. HOFFMAN MACHINE PRODUCTS' ASSETS:

On July 1, 1997, the Company acquired substantially all of the assets and operating liabilities of P. R. Hoffman Machine Products Corporation. P. R. Hoffman specializes in the development, manufacture and marketing of double-sided lapping and polishing machines and related consumables used in the manufacture of semiconductor silicon wafers. The purchase method of accounting is being used for this acquisition, and therefore, the accompanying statements include the results of the operations of P. R. Hoffman since the date of acquisition.

The cost of the acquisition is summarized as follows:	
Cash	$2,308,000
Liabilities assumed	382,000
Acquisition transaction costs	270,000
Issuance of 32,388 shares of common stock	65,000

Issuance of 150,000 warrants (Notes 11 and 12)	167,000
Total cost of acquisition	$3,192,000

(3) PURCHASE OF P. R. HOFFMAN MACHINE PRODUCTS' ASSETS - (CONTINUED)

The cost of the acquisition was allocated as follows:

Accounts Receivable	$1,122,000
Inventory	1,060,000
Property	421,000
Other assets and liabilities	35,000
Purchase price in excess of net assets acquired	554,000
Total	$3,192,000

The valuation of the common stock issued in connection with these transactions was determined based on the fair market value of the common stock on the date of issuance, taking into account the illiquidity arising from restrictions on the sale of the stock. The purchase price in excess of net assets acquired commonly referred to as "goodwill" is being amortized on a straight-line basis over a period of 15 years.

In addition to the above purchase price, the former owner of P. R. Hoffman Machine Products Corporation is entitled to additional payments equal to 50% of pretax income of the P.R. Hoffman operation in excess of $800,000 per year for a period of 5 years after the year ended September 30, 1997, limited to a maximum aggregate of $2 million of such payments. The additional contingent purchase price of up to $2 million is payable in a combination of cash and unregistered and registered common stock of Amtech Systems, Inc. as defined in the Asset Purchase Agreement. This additional consideration will be treated as part of the purchase price to the extent earned and will be amortized over the remainder of the fifteen year period that began on the July 1, 1997 acquisition date. No contingent consideration was earned in fiscal 1998 or 1997.

As a part of the transaction, the Company subleases a 21,740 square foot building, located in Carlisle, Pennsylvania, from John R. Krieger, the president and former owner of the P.R. Hoffman operation. The lease requires monthly payments of $10,755, on a triple net basis, expires on June 30, 1999, and includes an option to renew the lease for two consecutive one-year terms. The Company also entered into an employment agreement with Mr. Krieger, which requires payments of $150,000 per year and expires on June 30, 2001.

The following consolidated pro forma financial information was prepared assuming that the acquisition had occurred at the beginning of each fiscal year. This pro forma information does not necessarily reflect the results of operations that would have occurred had the acquisition taken place at the beginning of each fiscal year and is not necessarily indicative of results that may be obtained in the future (unaudited):

(3) PURCHASE OF P. R. HOFFMAN MACHINE PRODUCTS' ASSETS - (CONTINUED)

	1997	1996
Revenues	$16,121,577	$15,028,672
Income from continuing operations	575,069	355,643
Net income	575,069	666,735
Earnings per share:		
Income from continuing operations	$ .11	$ .08
Net income	$ .11	$ .13

For purposes of the above pro forma presentation, the historical revenues and earnings of P. R. Hoffman for the twelve month period ended September 30, 1997 and the year ended December 31, 1996 have been combined with the revenues and earnings of the Company for the years ended September 30, 1997 and 1996, respectively. Therefore, both columns include the operating results of P. R. Hoffman for the three months ended December 31, 1996, including $1,332,814 of revenues and $227,591 of operating losses.

(4) LONG-TERM OBLIGATIONS:

Long-term debt included in long-term obligations includes a twenty year mortgage secured by the Company's land and building located in The Netherlands.

The long-term debt portion of this debt was $215,000 and $216,000 as of September 30, 1998 and 1997, respectively. As of September 30, 1998, the collateral has a carrying value of $406,000. Principal is payable in The Netherlands guilder in 240 equal monthly payments. Principal payments are $13,000 for each of the next four years, with the payments for 1999 and 1998 included with accounts payable as of September 30, 1998 and 1997. Interest is fixed at 6.95% through June 2001, after which the rate will be adjusted to the prevailing market rate. There is a penalty for prepayment of the loan prior to June 2001.

In October 1998, the Company was granted a line of credit in the amount of approximately $375,000, the equivalent of 750,000 of The Netherlands' guilders at an interest rate of 2% over a Netherlands bank's basic interest rate, 3.75% as of October 31, 1998. The line of credit is secured by a $125,000 second mortgage on the Company's land and building in the Netherlands and certain accounts receivable, which amounted to $1,754,000 as of September 30, 1998.

(5) COMMITMENTS AND CONTINGENCIES:

During March 1994, the Company entered into a research and development contract (the "Research Agreement") with and paid $355,405 to the University of California at Santa Cruz (the "University"). That amount was expensed in fiscal 1994. The Company's purpose for entering into the contract was to determine the feasibility and demonstrate the practical application of the Company's patented photo-assisted chemical vapor deposition ("CVD") process. The University has developed designs and specifications for a prototype model of a product embodying the Company's technology and used it to conduct the initial study. The University has also proven that Amtech's patented method solves the problem of deposited materials obstructing the ultra-violet light used to activate the desired chemical reactions. However, the study has not developed a photo-assisted machine that produces a commercially viable rate of deposition. Due to economic circumstances and delays in achieving the goals of the research project, the Company has suspended work, until success appears to be more certain. There can be no assurance that the tools required to increase the prospects of success will become available in time to make further study economically attractive. Costs of the Research Agreement are reflected separately in the Consolidated Statement of Operations. Other research and development includes the cost of internal personnel and related expenses incurred on several projects, including the photo-assisted CVD project.

Key suppliers include two (2) steel mills, one domestic and one German, capable of meeting the material specifications the Company requires, an injection molder that provides plastic insets for steel carriers; a pad supplier that produces a unique material used to attach semiconductor wafers to the polishing template (sole sourced from a Japanese company); and an adhesive manufacturer that supplies the critical glue used in the production of the semiconductor polishing templates. The Company has unconditional commitments to purchase $386,000 of German steel, all of which the Company is required to take or pay for in fiscal 1999. Due to long lead times, certain minimum order quantities, the slow-down in the semiconductor industry and quantities of similar steel in inventory it could take several years to use all of the steel commitments in production of the Company's products. However, these purchase commitments are not expected to result in any significant losses.

(6) MAJOR CUSTOMERS AND FOREIGN SALES:

The Company had major customers accounting for more than 10% of sales, which were different in each of the three years presented, as follows:

	1998	1997	1996
Customer 1	--	--	17%
Customer 2	--	--	10%
Customer 3	--	--	10%
Customer 4	--	--	10%
Customer 5	--	16%	--
Customer 6	--	16%	--
Customer 7	12%	--	--
Customer 8	12%	--	--
	24%	32%	47%

As of September 30, 1998 and 1997, receivables from three customers

comprise 43% and 55% of accounts receivable, respectively, representing a concentration of credit risk as defined by SFAS No. 105, "Disclosure of Information about Financial Instruments with Off-Balance-Sheet Risk and Financial Instruments with Concentrations of Credit Risk".

The Company's sales were to customers in the following geographic regions:

	1998	1997	1996
United States & Canada (including 1% or less to Costa Rica)	55%	38%	39%
Far East (Korea, People's Republic of China, Taiwan, Japan, Singapore, Indonesia, Malaysia and India)	8%	27%	40%
Europe (including 1% or less to Africa)	31%	35%	21%
Australia	6%	--	--
	100%	100%	100%

(7) FOREIGN OPERATIONS AND GEOGRAPHIC INFORMATION:

The Company has manufacturing operations in the United States and The Netherlands. Revenues, operating profit (loss) and identifiable assets by geographic region of the locations for the fiscal years ended 1998, 1997 and 1996 are as follows:

	1998	1997	1996
Revenues			
United States	$10,481,408	$ 5,321,240	$3,369,915
The Netherlands	5,732,496	5,789,902	5,044,090
	$16,213,904	$11,111,142	$8,414,005
Operating profit (loss)			
United States	$ (376,754)	$ (146,742)	$ 89,893
The Netherlands	(527,580)	362,162	30,920
	$ (904,334)	$ 215,420	$ 120,813
Identifiable Assets			
United States	$ 5,855,188	$ 7,173,662	$6,006,169
The Netherlands	3,470,291	2,181,430	2,452,445
	$ 9,325,479	$ 9,355,092	$8,458,614

(8) LEASES:

The Company leases buildings, vehicles and equipment. As of September 30, 1998 minimum rental commitments under noncancellable operating leases total $281,000, of which $156,000, $69,000, $52,000 and $4,000 are payable in fiscal 1999, 2000, 2001 and 2002, respectively.

Rental expense related to continuing operations, net of sublease income, for 1998, 1997 and 1996 was approximately $234,000, $98,000 and $108,000, respectively.

(9) PROPRIETARY PRODUCT RIGHTS:

The Company acquired the proprietary product rights to Atmoscan in 1983, which provides an improved method for the automatic loading of silicon wafers into diffusion furnaces. The Company has agreed to pay the inventor royalties for 17 years until November 22, 2000. From the first quarter of fiscal 1994 through the year 2000, royalties are 4% on sales of complete Atmoscan systems and 2% on any related spare parts.

Through the acquisition of the net assets of P. R. Hoffman Machine Products Corporation (see Note 3), the Company acquired the license for the design of its steel carriers with plastic inserts for abrasive machining of silicon wafers. In 1995, P. R. Hoffman licensed

(9) PROPRIETARY PRODUCT RIGHTS - (CONTINUED)

the patent rights from Wacker Siltronics. Royalties are 5% on net sales of insert carriers to third parties.

Royalty expense included in cost of product sales totaled approximately $82,000, $44,000 and $47,000 in 1998, 1997 and 1996, respectively.

(10) INCOME TAXES:

The provision for (benefit from) income taxes on continuing operations consists of:

	1998	1997	1996
Current			
Domestic federal	$ (28,000)	$ (32,000)	$158,000
Foreign	(133,000)	202,000	54,000
Domestic State	21,000	20,000	8,000
	(140,000)	190,000	220,000
Deferred			
Domestic federal	(70,000)	(125,000)	(16,000)
Foreign	(45,000)	77,000	(54,000)
Domestic State	(5,000)	(2,000)	--
	(120,000)	(50,000)	(70,000)
	$(260,000)	$ 140,000	$150,000

The provision for income taxes on continuing operations is different from the amount that would be computed by applying the United States corporate income tax rate to the income (loss) from continuing operations before income taxes. The differences as of September 30 are summarized as follows:

	1998	1997	1996
Tax provision (benefit) at the federal statutory rate	$(289,000)	$128,000	$118,000
Effect of expenses not deductible for tax	19,000	19,000	3,000
State tax provision	(38,000)	23,000	28,000
Effect of losses of Korean joint venture	--	(22,000)	22,000
Change in valuation allowance	54,000	3,000	(20,000)
Other items	(6,000)	(11,000)	(1,000)
Income tax provision (benefit)	$(260,000)	$140,000	$150,000

(10) INCOME TAXES - (CONTINUED)

The tax assets (liabilities) comprising the net deferred tax asset as of September 30, 1998 and 1997 are as follows:

	1998	1997
Allowance for doubtful accounts	$ 54,000	$ 40,000
Uniform capitalization of inventory costs	50,000	48,000
Inventory write-downs not currently deductible	71,000	23,000
Book vs. tax depreciation	(27,000)	(19,000)
Unrealized currency losses/(gains)	35,000	(24,000)
State net operating loss carryforwards	72,000	63,000
Liabilities not currently deductible	253,000	203,000
Valuation allowance	(115,000)	(61,000)
	$ 393,000	$ 273,000

In evaluating the probability of realizing its deferred tax assets, the Company has limited its recognition of deferred tax assets to those tax assets which management believes are more likely than not to be realized. The remaining deferred tax assets have been offset by the valuation allowance.

See Note 14 regarding the income tax treatment of the gain on the disposal of discontinued operations.

(11) EARNINGS (LOSS) PER COMMON SHARE:

All prior year earnings per share (EPS) data presented have been restated as required by SFAS No. 128. EPS were calculated as follows:

	1998	1997	1996
Net income (loss)	$ (589,887)	$ 237,709	$ 508,683
WEIGHTED AVERAGE SHARES OUTSTANDING:			
Common stock	4,213,482	4,168,111	4,175,728
Common stock equivalents issuable upon exercise of warrants and stock options (1)	--	529,831	1,167,878
	4,213,482	4,697,942	5,343,606
EARNINGS (LOSS) PER SHARE:			
Basic	$ (.14)	$ .06	$ .12
Diluted	$ (.14)	$ .05	$ .10

1. Number of common stock equivalents calculated using the treasury stock method and the average market price during the period. In fiscal 1998 all options and warrants, totaling 3,371,584, were anti-dilutive due to the net loss and therefore did not enter into the EPS calculation. Of these options and warrants, 3,291,584 had an exercise price greater than the average market price during the period.

(12) STOCK BASED COMPENSATION:

The Company accounts for its stock-based compensation prior to October 1995, under APB No. 25, under which no compensation expense has been recognized, as all options and warrants granted have an exercise price equal to or in excess of the fair market value of the Company's common stock on the date of grant. Since the effective date of SFAS No. 123, the Company has applied this method of accounting for stock-based compensation to grants to employees of the Company.

Effective with the close of business on March 29, 1996, each share of the $.01 par value common stock of the Company (the "common stock") was split into two shares. All shares and per share amounts have been restated to give effect for this two-for-one forward stock split.

(12) STOCK BASED COMPENSATION - (CONTINUED)

STOCK WARRANTS - In fiscal 1995, the Company issued an aggregate of 2,625,000 redeemable warrants to the public (2,415,000) and the underwriter (210,000) in connection with a secondary public offering, which have an exercise price of $2.75 per share and expire on December 15, 1999. The redeemable warrants are subject to the Company's right of redemption, under certain circumstances, at $.05 each during the period in which they are exercisable. In connection with the public offering, the Company also sold the underwriting group warrants entitling the group to purchase an additional 210,000 shares at $2.25 per share anytime prior to December 15,1999.

In connection with the acquisition of the net assets of P.R. Hoffman during fiscal 1997, the Company issued 150,000 warrants for purchase of one share each of $.01 par value common stock at a per share exercise price of $3.00. These warrants have been valued at $167,200 using the Black-Scholes valuation method discussed in Note 2. The primary assumptions used in the valuation of these warrants were a risk free rate of 6.29%, expected dividend yield of 0%, average holding period of 2.5 years, and 69% volatility. The value of these warrants has been included in the goodwill associated with the purchase of the P. R. Hoffman net assets.

STOCK OPTION PLANS - The board of directors has reserved 50,000 shares of common stock for issuance upon exercise of the outstanding options issued to employees under the 1983 Incentive Stock Option Plan, which expired in 1993. Another 30,000 shares of common stock are reserved for the exercise of stock purchase rights granted to directors under Director Stock Purchase Agreements prior to 1995. The Non-Employee Directors Stock Option Plan was approved by the stockholders in 1996 for the issuance of up to 200,000 shares of common stock to directors. The Amended and Restated 1995 Stock Option Plan and the 1995 Stock

Bonus Plan were also approved by stockholders in 1996 under which a combined total of 320,000 shares were authorized. The 1998 Employee Stock Option Plan, under which 100,000 shares may be optioned, was adopted by the board of director on January 31, 1998 and approved by shareholders on March 20, 1998. All of the plans with the exception of the 1983 Incentive Stock Option Plan Incentive expire in 2006. All stock options issued under the terms of the plans have or will have an exercise price equal to or greater than the fair market value of the common stock at the date of the option grant and expire no later than 10 years from the date of grant, with the most recent grant expiring February 28, 2008. Under the terms of the 1995 Stock Option Plan, nonqualified stock options also may be issued. Options issued in fiscal years 1998, 1997 and 1996 vest at the rate of 20% - 25% per year. Shares granted under the 1995 Stock Bonus Plan totaled 50,000 in 1995 and 8,500 in 1996, of which 12,000 were forfeited in 1996. As of September 30, 1998, the Company had 269,000 options available for issuance under the plans.

(12) STOCK BASED COMPENSATION - (CONTINUED)

The stock option transactions and the options outstanding for the three years ended September 30, 1998, are summarized as follows:

	Number of Options	Weighted-Average Exercise Price
Outstanding at September 30,1995	147,000	$ 1.40
Expired	(14,000)	1.08
Outstanding at September 30,1996	133,000	$ 1.32
Granted	282,084	2.50
Exercised	(27,000)	1.07
Expired	(6,000)	1.63
Outstanding at September 30,1997	382,084	2.17
Granted	54,000	2.33
Exercised	(18,000)	.90
Expired or forfeited	(33,500)	2.23
Outstanding at September 30,1998	384,584	2.26
Outstanding options exercisable as of:		
September 30, 1996	81,000	1.52
September 30, 1997	50,000	1.45
September 30, 1998	98,000	2.37

In fiscal 1998 and 1997 the number of incentive stock options issued to employees, net of forfeitures, were 7,000 and 264,000, respectively, and they were valued at $17,000 and $440,000, respectively, using the Black-Scholes valuation method. Had the effects of stock-based compensation been accounted for in the financial statements for fiscal 1998, the net (loss) would have been approximately ($681,000) and the basic and diluted (loss) per share would have been $.16 per share. Had the effects of stock-based compensation been accounted for in the financial statements for fiscal 1997, the net income would have been approximately $187,000 and the basic and diluted per share would have been $.04 per share. The primary assumptions used in the valuation were a weighted average risk free rate of 6.23%, an expected dividend yield of 0%, holding periods of four to eight years and 69% volatility. No adjustment has been made for the non-transferability of the options or for the risk of forfeiture at the time of issuance. Forfeitures are instead recorded as incurred.

As of September 30, 1998 the Company's 384,584 outstanding stock options had a weighted average remaining contractual life of 7.6 years and a range of exercise prices of $1.03 to $3.31. In addition, as of September 30, 1998 the Company had 97,917 of exercisable stock options with a weighted average remaining contractual life of 7.7 years and a range of exercise prices of $1.75 to $2.50.

(12) STOCK BASED COMPENSATION - (CONTINUED)

On October 14, 1998, the Company re-priced all stock options outstanding as of September 30, 1998 to the closing market price of $.56 per share on that date. Vesting schedules and expiration dates remain unchanged. In accordance with APB No. 25, "Accounting for Stock Issued to Employees", the Company is not

required to record compensation expense related to this re-pricing and no such expense has been recorded in these financial statements.

(13) KOREAN JOINT VENTURE:

In the first quarter of fiscal 1996, the Company entered into a joint venture agreement pursuant to which the Company received a 45% ownership interest and a 50% voting interest in Seil Semicon, Inc., (the "JVC"), in return for a commitment to invest $500,000 in cash. The joint venturers planned to operate a silicon test wafer reclaiming business in Korea through Seil Semicon, Inc., which remains in the start-up phase. Pursuant to that agreement, the Company invested $425,000 and expensed $65,000 of that amount as its share of the start-up losses. The joint venture succeeded in acquiring real property for construction of the reclamation facility and in securing $3 million in third party financing. However, a review during the fourth quarter of fiscal 1996 revealed that the increases in the JVC's anticipated costs during the start-up phase and the cost of additional equipment required for the operation had expanded the total projected capital requirements by $2,500,000. During the first quarter of fiscal 1997, the Company's financial relationship with the joint venture was terminated because management determined that raising the Company's investment commitment to $3 million, without obtaining majority control, was more risk than was appropriate for the Company. The Company received $478,000 during December 1996, pursuant to the termination agreement, which reimbursed the Company's actual investment and expenses.

(14) DISCONTINUED TECHNICAL CONTRACT PERSONNEL SEGMENT:

The Company entered the technical contract personnel segment in 1988. On September 30, 1992, the Company sold substantially all of the operations of the technical contract personnel segment, with only Echelon Service Company ("Echelon") being retained. Echelon was acquired in 1989, using stock and cash at closing as consideration, as well as an incentive arrangement payable in cash and stock. Since October 1995, when the board of directors approved a plan to discontinue the technical contract personnel business, those operations have been designated as discontinued in financial reports of the Company. Effective December 29, 1995, the Company exchanged all of its ownership interest in the stock of Echelon for 196,034 shares of the Company's outstanding $.01 par value common stock previously owned by Eugene R. Hartman, then an officer and director of the Company. The transaction was preceded by a dividend from Echelon to the Company in order to equalize values. The transaction was structured to be a tax-free reorganization and, as such, no provision for income taxes has been made relative to this transaction.

The results of the discontinued operations reflected in the consolidated statements of operations are those of Echelon through the date of the disposal. Revenue of the discontinued operations were $1,235,000 for the three months ended December 1995. Income from discontinued operations for fiscal 1996 is net of applicable income taxes of $25,000. The fiscal 1996 basic and diluted earnings from discontinued operations, including the gain on disposition, were $.07 and $.06 per share, respectively.

AMTECH SYSTEMS, INC. AND SUBSIDIARIES

SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS

FOR THE YEARS ENDED SEPTEMBER 30, 1998, 1997 AND 1996

	For the Year Ended September 30,	Balance at Beginning of Year	Charged (credited) to Expense	Write-offs	Balance at End of Year
1. Allowance for Doubtful Accounts:					
	1998	$130,000	$ 25,198	$ 12,198	$143,000
	1997	90,000	42,960	2,960	130,000
	1996	80,000	66,249	56,249	90,000
2. Deferred Tax Valuation Allowance:					
	1998	$ 61,000	$ 54,000	$ --	$115,000
	1997	58,000	3,000	--	61,000
	1996	78,000	(20,000)	--	58,000

PART III

Pursuant to Paragraph G(3) of the General Instructions to Form 10-K, portions of the information required by Part III of Form 10-K are incorporated by reference from the Company's Proxy Statement to be filed with the Commission

in connection with the 1999 Annual Meeting of Stockholders (the "Proxy Statement").

ITEM 9. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

Information concerning directors and executive officers of the Company appears in the Company's Proxy Statement.

ITEM 10. EXECUTIVE COMPENSATION

The information required by this Item is incorporated by reference to the Company's Proxy Statement.

ITEM 11. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The information required by this Item is incorporated by reference to the Company's Proxy Statement.

ITEM 12. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information required by this Item is incorporated by reference to the Company's Proxy Statement.

PART IV

ITEM 13. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K

(a) FINANCIAL STATEMENTS.

The following is a list of all financial statements filed as a part of this Report:

1. Consolidated Balance Sheets - September 30, 1998 and 1997

2. Consolidated Statements of Operations for the years ended September 30, 1998, 1997 and 1996

3. Consolidated Statements of Stockholders' Equity for the years ended September 30, 1998, 1997 and 1996

4. Consolidated Statements of Cash Flows for the years ended September 30, 1998, 1997 and 1996

5. Notes to Consolidated Financial Statements - September 30, 1998, 1997 and 1996

(b) FINANCIAL STATEMENT SCHEDULES

The following is a list of a financial statement schedule required to be filed as a part of this Report:

1. Schedule II - Valuation and Qualifying Accounts

All schedules other than the Schedule listed above, are omitted as the information is not required, is not material or is otherwise furnished.

(c) EXHIBITS.

EXHIBIT NO.	DESCRIPTION	METHOD OF FILING
3.1	Articles of Incorporation	A
3.2	Articles of Amendment to Articles of Incorporation, dated April 27, 1983	A
3.3	Articles of Amendment to Articles of Incorporation, dated May 19, 1987	B
3.4	Articles of Amendment to Articles of Incorporation, dated May 2, 1988	C
3.5	Articles of Amendment to Articles of Incorporation, dated May 28, 1993	G
3.6	Amended and Restated Bylaws	D
10.1	Amended and Restated 1995 Stock Option Plan	J
10.2	1995 Stock Bonus Plan	J
10.3	Non-Employee Director Stock Option Plan	K
10.4	Employment Agreement with Robert T. Hass, dated May 19, 1992	F
10.5	Registration Rights Agreement with J.S. Whang, dated January 24, 1994	G
10.6	Employment Agreement with J.S. Whang, dated February 28, 1997	M
10.7	Contract of Sale (Real Property) dated June 21, 1996 between Tempress Systems, Inc. and Orgelmakerij Gedr. Rell B.V.	I

10.8	Research Agreement with The Regents of the University of California dated March 1, 1994, together with amendments thereto dated March 1, 1994, March 30, 1994, March 7, 1995, June 26, 1995, October 16, 1995, November 29, 1995, and December 4, 1995	H
10.9	Amendment to Research Agreement with the Regents of the University of California dated July 8, 1996	I
10.10	Employment Agreement, dated July 1, 1997, between the Registrant and John R. Krieger	L
10.11	Registration Rights Agreement, dated July 1, 1997, between the Registrant and John R. Krieger	L

EXHIBIT NO.	DESCRIPTION	METHOD OF FILING
10.12	Sublease Agreement, dated July 1, 1997, between the Registrant and John R. Krieger	L
10.13	Asset Purchase Agreement, dated July 1, 1997, among the Registrant, P.R. Hoffman Machines Corporation and John R. Krieger	L
11	Scheudle of Computation of Net Income per Share	*
21	Subsidiaries of the Registrant	*
23	Consent of Independent Public Accountant	*
24	Powers of Attorney	See Signature Page
27	Financial Data Schedule	*

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* Filed herewith.

A Incorporated by reference to the Company's Form S-18 Registration Statement No. 2-83934-LA.

B Incorporated by reference to the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 1987.

C Incorporated by reference to the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 1988.

D Incorporated by reference to the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 1991.

E Incorporated by reference to the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 1992.

F Incorporated by reference to the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 1993.

G Incorporated by reference to the Company's Form S-1 Registration Statement No. 33-77368.

H Incorporated by reference to the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 1995.

I Incorporated by reference to the Company's Form S-3 Registration Statement No. 333-09917.

J Incorporated by reference to Company's Form S-8 Registration Statement relating to the Amended and Restated 1995 Stock Option Plan and the 1995 Stock Bonus Plan filed with the Securities and Exchange Commission on September 9, 1997.

K Incorporated by reference to Company's Form S-8 Registration Statement relating to the Non-Employee Directors Stock Option Plan filed with the Securities and Exchange Commission on August 8, 1996.

L Incorporated by reference to the Company's Current Report on Form 8-K, dated July 1, 1997.

M Incorporated by reference to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 1997.

(d) Reports on Form 8-K

There have not been any Form 8-K filed during this period.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AMTECH SYSTEMS, INC.

December 23, 1998 By: /s/ John S. Whang

John S. Whang, President

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints JONG S. WHANG and ROBERT T. HASS, and each of them, his true and lawful attorneys-in-fact and agents, with full power

of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to this Form 10-K Annual Report, and to file the same, with all exhibits thereto, and other documents in connection therewith with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully and to all intents and purposes as he might or could do in person hereby ratifying and confirming all that said attorneys-in-fact and agents, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report on Form 10-K has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

SIGNATURE	TITLE	DATE
/s/ Jong S. Whang Jong S. Whang	Chairman of the Board, President (Chief Executive Officer)	December 23, 1998
/s/ Robert T. Hass Robert T. Hass	Vice President-Finance (Chief Financial & Accounting Officer)	December 23, 1998
/s/ Donald F. Johnston Donald F. Johnston	Director	December 23, 1998
/s/ Alvin Katz Alvin Katz	Director	December 23, 1998
/s/ Bruce R. Thaw Bruce R. Thaw	Director	December 23, 1998

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
EXHIBIT 11
SCHEDULE OF COMPUTATION OF NET INCOME PER SHARE
FOR THE YEARS ENDED SEPTEMBER 30, 1998, 1997 AND 1996

	1998	1997	1996
BASIC EARNINGS (LOSS) PER SHARE			
Weighted average number of common shares outstanding	4,213,482	4,168,111	4,175,728
Income (loss) from continuing operations	$ (589,887)	$ 237,709	$ 197,591
Basic earnings (loss) per share - continuing	$ (.14)	$ .06	$ 05
Net income (loss)	$ (589,887)	$ 237,709	$ 508,683
Basic earnings (loss) per share	$ (.14)	$ .06	$ .12
DILUTED EARNINGS (LOSS) PER SHARE			
Average number of common shares outstanding	4,213,482	4,168,111	4,175,728
Incremental shares attributable to warrants/options	--	529,831	1,167,877
Total shares used in the calculation	4,213,482	4,697,942	5,343,605
Income (loss) from continuing operations	$ (589,887)	$ 237,709	$ 197,591
Diluted earnings (loss) per share - continuing	$ (.14)	$ .05	$ .04
Net income (loss)	$ (589,887)	$ 237,709	$ 508,683
Diluted earnings (loss) per share	$ (.14)	$ .05	$ .10

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the incorporation of our report included in this form 10-K, into the Company's previously filed Registration Statements on Forms S-3 and Forms S-8 (File Numbers 333-09917, 333-10117, 333-09911 and 333-09909).

ARTHUR ANDERSEN LLP

Phoenix, Arizona
December 14, 1998.

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THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM THE BALANCE SHEETS AS OF SEPTEMBER 30, 1998 AND SEPTEMBER 30, 1997, AND THE STATEMENTS OF OPERATION AND THE STATEMENTS OF CASH FLOW FOR THE THREE YEARS ENDED SEPTEMBER 30, 1998 AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED SEPTEMBER 30, 1998.
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<OTHER-SE>	6,404,883
<TOTAL-LIABILITY-AND-EQUITY>	9,325,479
<SALES>	16,213,904
<TOTAL-REVENUES>	16,213,904
<CGS>	12,069,780
<TOTAL-COSTS>	12,069,780
<OTHER-EXPENSES>	0
<LOSS-PROVISION>	25,198
<INTEREST-EXPENSE>	15,731
<INCOME-PRETAX>	(849,887)
<INCOME-TAX>	(260,000)
<INCOME-CONTINUING>	(589,887)
<DISCONTINUED>	0
<EXTRAORDINARY>	0
<CHANGES>	0
<NET-INCOME>	(589,887)
<EPS-PRIMARY>	(.14)
<EPS-DILUTED>	(.14)

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