
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 10-Q

(Mark One)

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

For the quarterly period ended: **March 31, 2004**

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
(State or other jurisdiction of incorporation or organization)

131 South Clark Drive, Tempe, Arizona
(Address of principal executive offices)

86-0411215
(I.R.S. Employer Identification No.)

85281
(Zip Code)

Registrant's telephone number, including area code: 480-967-5146

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

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Exchange Act). Yes No

Shares of Common Stock outstanding as of May 12, 2004: 2,700,671

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
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AMTECH SYSTEMS, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS

	March 31, 2004	September 30, 2003
	(Unaudited)	
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 7,635,584	\$ 7,453,069
Accounts receivable (less allowance for doubtful accounts of \$180,000 at March 31, 2004 and \$176,000 at September 30, 2003)	2,580,872	3,005,128
Inventories	4,462,812	3,893,886
Deferred income taxes	970,000	980,000
Income taxes receivable	474,000	460,000
Prepaid expenses	251,067	193,615
	<hr/>	<hr/>
Total current assets	16,374,335	15,985,698
PROPERTY, PLANT AND EQUIPMENT—net	1,393,362	1,503,074
DEFERRED INCOME TAXES—LONG TERM	120,000	150,000
GOODWILL AND OTHER ASSETS—net	754,697	760,270
	<hr/>	<hr/>
	\$ 18,642,394	\$ 18,399,042
	<hr/>	<hr/>
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable	\$ 860,532	\$ 1,221,327
Accrued compensation and related taxes	726,311	626,426
Accrued warranty expense	238,334	321,300
Deferred profit	507,712	534,082
Customer deposits	438,641	226,959
Other accrued liabilities	446,043	329,061
	<hr/>	<hr/>
Total current liabilities	3,217,573	3,259,155
	<hr/>	<hr/>
LONG-TERM OBLIGATIONS	653,591	640,490
	<hr/>	<hr/>
STOCKHOLDERS' EQUITY:		
Preferred stock; no specified terms; 100,000,000 shares authorized; none issued	—	—
Common stock; \$0.01 par value; 100,000,000 shares authorized; shares issued and outstanding: 2,700,671 at March 31, 2004 and 2,698,421 at September 30, 2003	27,007	26,984
Additional paid-in capital	12,875,924	12,873,039
Accumulated other comprehensive income	363,886	194,338
Retained earnings	1,504,413	1,405,036
	<hr/>	<hr/>
Total stockholders' equity	14,771,230	14,499,397
	<hr/>	<hr/>
	\$ 18,642,394	\$ 18,399,042
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The accompanying notes are an integral part of these condensed consolidated financial statements.

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AMTECH SYSTEMS, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
For the Three and Six Months Ended March 31, 2004 and 2003
(Unaudited)

	Three Months Ended March 31,		Six Months Ended March 31,	
	2004	2003	2004	2003
Net revenues	\$ 5,631,423	\$ 5,447,628	\$ 9,552,194	\$ 9,776,825
Cost of sales	4,043,638	4,462,899	6,775,412	7,853,192
Gross margin	1,587,785	984,729	2,776,782	1,923,633
Selling, general and administrative	1,292,363	1,239,154	2,347,507	2,266,850
Research and development	133,718	154,529	266,289	259,265
Operating income (loss)	161,704	(408,954)	162,986	(602,482)
Interest income (expense), net	(189)	1,190	2,391	15,150
Income (loss) before income taxes	161,515	(407,764)	165,377	(587,332)
Income tax provision (benefit)	64,000	(140,000)	66,000	(203,000)
NET INCOME (LOSS)	\$ 97,515	\$ (267,764)	\$ 99,377	\$ (384,332)
EARNINGS (LOSS) PER SHARE:				
Basic earnings (loss) per share	\$.04	\$ (.10)	\$.04	\$ (.14)
Weighted average shares outstanding	2,700,671	2,689,571	2,700,387	2,689,285
Diluted earnings (loss) per share	\$.03	\$ (.10)	\$.04	\$ (.14)
Weighted average shares outstanding	2,787,533	2,689,571	2,795,492	2,689,285

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

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AMTECH SYSTEMS, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
For the Six Months Ended March 31, 2004 and 2003
(Unaudited)

	<u>2004</u>	<u>2003</u>
OPERATING ACTIVITIES		
Net income (loss)	\$ 99,377	\$ (384,332)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:		
Depreciation and amortization	217,934	266,110
Write-down of inventory	40,520	—
Provision for doubtful accounts	(2,528)	2,822
Deferred income taxes	40,000	56,000
Changes in operating assets and liabilities:		
Accounts receivable	520,566	(218,499)
Inventories	(504,217)	89,193
Prepaid expenses and other assets	(54,732)	(76,687)
Accounts payable	(409,297)	(154,432)
Accrued liabilities and customer deposits	297,434	(94,051)
Deferred profit	(47,656)	(96,426)
Income taxes receivable/payable	(6,078)	(595,115)
	<u>191,323</u>	<u>(1,205,417)</u>
INVESTING ACTIVITIES		
Purchases of property, plant and equipment	(60,378)	(83,944)
	<u>(60,378)</u>	<u>(83,944)</u>
FINANCING ACTIVITIES		
Common stock issued	2,908	1,126
Borrowings on mortgage loan	—	244,969
	<u>2,908</u>	<u>246,095</u>
EFFECT OF EXCHANGE RATE CHANGES ON CASH	48,662	87,172
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	182,515	(956,094)
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	7,453,069	8,045,663
CASH AND CASH EQUIVALENTS, END OF PERIOD	<u>\$ 7,635,584</u>	<u>\$ 7,089,569</u>
Supplemental Cash Flow Information:		
Cash paid during the period for:		
Interest expense	\$ 13,716	\$ 21,675
Income taxes paid, net	\$ 34,000	\$ 329,000

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

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
THREE AND SIX MONTHS ENDED MARCH 31, 2004 (UNAUDITED)

(1) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation—The accompanying unaudited condensed consolidated financial statements include the accounts of Amtech Systems, Inc., an Arizona corporation (“Amtech”), and its wholly-owned subsidiaries, P. R. Hoffman Machine Products, Inc. (“P. R. Hoffman”) based in the United States, and Tempres Systems, Inc. (“Tempres”) based in The Netherlands (collectively, the “Company”). All significant intercompany balances and transactions have been eliminated in consolidation.

The accompanying unaudited condensed consolidated financial statements have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (the “SEC”), and consequently do not include all disclosures normally required by accounting principles generally accepted in the United States of America. In the opinion of management, all adjustments necessary to present fairly the financial position, results of operations and cash flows for the periods presented have been made.

Certain information and footnote disclosures normally included in financial statements have been condensed or omitted pursuant to the rules and regulations of the SEC. These condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto included in the Company’s Annual Report on Form 10-K for the fiscal year ended September 30, 2003.

The consolidated results of operations for the three and six months ended March 31, 2004 are not necessarily indicative of the results to be expected for the full year.

Use of Estimates—The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Reclassifications—In order to more accurately reflect research and development expenditures, the Company reclassified \$51,000 and \$98,000 of expenses previously reflected as cost of sales to research and development in the three and six months ended March 31, 2003, respectively.

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Deferred Profit—The components of deferred profit are as follows:

	March 31, 2004	September 30, 2003
Deferred Revenues	\$ 511,502	\$ 626,265
Deferred Costs	3,790	92,183
	<u>\$ 507,712</u>	<u>\$ 534,082</u>

Concentrations of Credit Risk—As of March 31, 2004, receivables from two customers comprised 15% and 10%, respectively, of accounts receivable. Management believes the amounts outstanding at March 31, 2004 are fully collectible. In addition, 58% of the work-in-process inventory at March 31, 2004 is attributable to a single customer. The systems ordered by that customer are part of a five-system order, which began shipping during the second quarter of 2004. The remaining systems ordered by this customer are currently scheduled to ship during the third and fourth quarters of 2004.

Inventories—The components of inventories are as follows:

	March 31, 2004	September 30, 2003
Purchased parts and raw materials	\$ 2,128,692	\$ 2,391,270
Work-in-process	1,716,356	1,011,717
Finished goods	617,764	490,899
	<u>\$ 4,462,812</u>	<u>\$ 3,893,886</u>

Stock-Based Compensation—The Company accounts for its employee stock-based compensation plans under Statement of Financial Accounting Standards (“SFAS”) No. 123, “Accounting for Stock-Based Compensation.” SFAS No. 123 permits companies to record employee stock-based transactions using the intrinsic value method in accordance with Accounting Principles Board (“APB”) Opinion No. 25, “Accounting for Stock Issues to Employees,” under which no compensation cost is recognized and the pro forma effects on earnings and earnings per share are disclosed as if the fair value approach had been adopted. The Company’s employee stock-based compensation plans are summarized in the table below:

Name of Plan	Shares Authorized	Plan Expiration
Director Stock Purchase Agreements (pre-1996)	15,000	90 days after board member termination
Non-Employee Directors Stock Option Plan	100,000	December 21, 2005
Amended and Restated 1995 Stock Option Plan and 1995 Stock Bonus Plan	160,000	October 5, 2005
1998 Employee Stock Option Plan	500,000	January 30, 2008

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Qualified 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 in 2014. Under the terms of the 1995 Stock Option Plan, nonqualified stock options may also be issued. Options issued by the Company vest at the rate of 20%-33% per year. As of March 31, 2004, the Company had 181,500 options available for issuance under the plans.

The stock option transactions and the options outstanding are summarized as follows:

	Six Months Ended March 31,			
	2004		2003	
	Options	Weighted Average Exercise Price	Options	Weighted Average Exercise Price
Outstanding at beginning of period	405,217	\$ 4.70	434,567	\$ 4.78
Granted	50,000	5.87	10,000	3.03
Exercised	(2,250)	1.29	(1,000)	1.13
Forfeited	(3,500)	3.91	—	—
Outstanding at end of period	449,467	4.85	443,567	4.74
Exercisable at end of period	261,817	\$ 4.37	203,701	\$ 3.94
Weighted average fair value of options granted during the period	\$ 2.63		\$ 0.99	

The Company has recognized no compensation expense, as all options have been granted with an exercise price equal to, or greater than, the fair value of the common stock on the date of grant. No adjustment has been made for the non-transferability of the options, or for the risk of forfeiture at the time of issuance. Forfeitures of unvested options are instead recorded as incurred. The fair value of each option grant has been estimated as of the date of grant using the Black-Scholes option pricing model with the following weighted average assumptions:

	Six Months Ended March 31,	
	2004	2003
Risk free interest rate	3.71% to 4.27%	4.8%
Expected life	4 to 6 years	4 years
Dividend rate	0%	0%
Expected volatility	40% to 45%	32%

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The following table illustrates the pro-forma effect on net income (loss) and on earnings (loss) per share, as if the Company had applied the fair value recognition provisions of SFAS No. 123:

	Three Months Ended March 31,		Six Months Ended March 31,	
	2004	2003	2004	2003
Net income (loss), as reported	\$ 97,515	\$ (267,764)	\$ 99,377	\$ (384,332)
Compensation expense, net of tax	60,461	51,588	107,936	102,817
Net income (loss), pro forma	\$ 37,054	\$ (319,352)	\$ (8,559)	\$ (487,149)
Basic Earnings (Loss) Per Share:				
As reported	\$.04	\$ (.10)	\$.04	\$ (.14)
Pro forma	.01	(.12)	—	(.18)
Diluted Earnings (Loss) Per Share:				
As reported	\$.03	\$ (.10)	\$.04	\$ (.14)
Pro forma	.01	(.12)	—	(.18)

The following summarizes information about stock options outstanding at March 31, 2004:

Options Outstanding				Options Exercisable	
Range of Exercise Prices	Number Outstanding	Remaining Contractual Life	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
\$1.13 – 1.49	70,017	2.85	\$1.13	70,017	\$1.13
1.50 – 1.99	10,500	4.91	1.50	10,500	1.50
2.00 – 3.24	11,700	8.42	2.88	4,434	2.77
3.25 – 4.24	11,000	7.77	3.25	4,000	3.25
4.25 – 5.49	87,250	5.58	4.43	40,400	4.42
5.50 – 6.49	93,000	8.44	5.85	29,800	5.83
6.50 – 6.99	166,000	6.98	6.54	102,666	6.55
	449,467			261,817	

Other Significant Accounting Policies—For further discussion of Amtech’s significant accounting policies, see “Item 2: Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies” and the Company’s audited consolidated financial statements and notes thereto contained in its Annual Report on Form 10-K for the fiscal year ended September 30, 2003.

Impact of Recently Issued Accounting Pronouncements—For discussion of the impact of recently issued accounting pronouncements, see “Item 2: Management’s Discussion and Analysis of Financial Condition and Results of Operations—Impact of Recently Issued Accounting Pronouncements.”

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(2) EARNINGS (LOSS) PER SHARE

Earnings (loss) per share (EPS) is calculated as follows:

	Three Months Ended March 31,		Six Months Ended March 31,	
	2004	2003	2004	2003
Net income (loss)	\$ 97,515	\$ (267,764)	\$ 99,377	\$ (384,332)
Weighted average shares outstanding:				
Common stock	2,700,671	2,689,571	2,700,387	2,689,285
Common stock equivalents (1)	86,862	—	95,105	—
Diluted shares	2,787,533	2,689,571	2,795,492	2,689,285
Earnings (Loss) Per Share:				
Basic	\$.04	\$ (.10)	\$.04	\$ (.14)
Diluted	.03	(.10)	.04	(.14)

- (1) The number of common stock equivalents is calculated using the treasury stock method and the average market price during the period. For the three and six months ended March 31, 2004, options and warrants on 295,300, and 225,300 shares, respectively, are excluded from the EPS calculations, as they had an exercise price greater than the average market price during the period. For the three and six months ended March 31, 2003, options and warrants on 489,267 shares are excluded from the EPS calculations, as they are either antidilutive due to the net loss for the period or had an exercise price greater than the average market price during the period.

(3) COMPREHENSIVE INCOME

	Three Months Ended March 31,		Six Months Ended March 31,	
	2004	2003	2004	2003
Net income (loss), as reported	\$ 97,515	\$ (267,764)	\$ 99,377	\$ (384,332)
Foreign currency translation adjustment	(92,071)	136,035	169,548	293,478
Comprehensive income (loss)	\$ 5,444	\$ (131,729)	\$ 268,925	\$ (90,854)

(4) BUSINESS SEGMENT INFORMATION

The Company classifies its products into two core business segments. The semiconductor equipment segment designs, manufactures and markets semiconductor wafer processing and handling equipment used in the fabrication of integrated circuits. Also included in the semiconductor equipment segment are the manufacturing support service operations and corporate expenses, except for a small portion that is allocated to the polishing supplies segment. The polishing supplies segment designs, manufactures and markets carriers, templates and equipment used in the lapping and polishing of wafer-thin materials, including silicon wafers used in the production of semiconductors.

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Information concerning the Company's business segments is as follows:

	Three Months Ended March 31,		Six Months Ended March 31,	
	2004	2003	2004	2003
Net revenues:				
Semiconductor equipment	\$ 3,803,358	\$ 4,123,138	\$ 6,461,220	\$ 7,239,941
Polishing supplies	1,828,065	1,324,490	3,090,974	2,536,884
	<u>\$ 5,631,423</u>	<u>\$ 5,447,628</u>	<u>\$ 9,552,194</u>	<u>\$ 9,776,825</u>
Operating income (loss):				
Semiconductor equipment	\$ 76,345	\$ (439,877)	\$ 178,330	\$ (534,090)
Polishing supplies	85,359	30,923	(15,344)	(68,392)
	<u>161,704</u>	<u>(408,954)</u>	<u>162,986</u>	<u>(602,482)</u>
Interest income (expense), net	(189)	1,190	2,391	15,150
	<u>\$ 161,515</u>	<u>\$ (407,764)</u>	<u>\$ 165,377</u>	<u>\$ (587,332)</u>

(5) SUBSEQUENT EVENT

On May 4, 2004, Amtech entered into a definitive agreement with a Japanese-owned company, Kokusai Semiconductor Equipment Corporation ("KSEC"), to acquire KSEC's BTI semiconductor horizontal diffusion furnace operations and assets in the United States and Europe. Amtech estimates the transaction value to be approximately \$4.6 million, including an estimated \$3.3 million to be paid at closing, \$0.3 million of assumed liabilities and up to \$1.0 million to be paid as certain inventories are consumed. Amtech will acquire, either through transfer of title or licensing agreements, all of the tangible and intellectual property assets used in KSEC's horizontal diffusion furnace business. However, excluded from the transaction will be those assets used by KSEC's selling, general and administrative functions. For KSEC's fiscal years ended March 31, 2003 and 2004, the operations being acquired had estimated sales to non-affiliates of approximately \$9.0 million and \$11.0 million, respectively. This transaction is expected to close by the end of June 2004, and is subject to a number of closing conditions.

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

Caution Regarding Forward-Looking Statements

Certain information contained or incorporated by reference in this Quarterly Report on Form 10-Q is forward-looking in nature. All statements included or incorporated by reference in this Report, or made by the management of Amtech Systems, Inc. and its subsidiaries ("Amtech"), other than statements of historical fact, are hereby identified as "forward-looking statements" (as such term is defined in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended). Examples of forward-looking statements include statements regarding Amtech's future financial results, operating results, business strategies, projected costs, products under development, competitive positions and plans and objectives of the Company and its management for future operations. In some cases, forward-looking statements can be identified by terminology such as "may," "will," "should," "would," "expects," "plans," "anticipates," "believes," "estimates," "predicts," "potential," "continue," or the negative of these terms or other comparable terminology. Any expectations based on these forward-looking statements are subject to risks and uncertainties and other important factors, including those discussed in the section entitled "Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations—Trends, Risks and Uncertainties" in Amtech's Annual Report on Form 10-K for the fiscal year ended September 30, 2003. These and many other factors could affect our future operating results and financial condition, and could cause actual results to differ materially from expectations based on forward-looking statements made in this document or elsewhere by us or on our behalf. Unless noted otherwise, all references to a year apply to our fiscal year, which ends on September 30th. All references to "we," "our," "us," or "Amtech" refer to Amtech Systems, Inc. and its subsidiaries.

Documents to Review in Connection with Management's Discussion and Analysis of Financial Condition and Results of Operations

This discussion should be read in conjunction with the Condensed Consolidated Financial Statements and Notes presented in this Quarterly Report on Form 10-Q and the Audited Consolidated Financial Statements and Notes and the section entitled "Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations—Trends, Risks and Uncertainties" in our Annual Report on Form 10-K for the fiscal year ended September 30, 2003 for a more complete understanding of our financial position and results of operations for the three and six month periods ended March 31, 2004.

Results of Operations

We develop, manufacture, market and service wafer and semiconductor fabrication equipment and related parts, supplies and services on a worldwide basis. The products offered are grouped into two business segments: the semiconductor equipment segment, which offers horizontal diffusion furnaces, processing/robotic equipment for diffusion furnaces, related spare parts and manufacturing support services to semiconductor fabricators and silicon wafer manufacturers; and the polishing supplies segment, which offers supplies, including carriers and templates, and equipment for lapping and polishing, which are some of the last steps in the fabrication of silicon wafers. Demand for our products can change significantly from period to

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period as a result of numerous factors, including, but not limited to, changes in: 1) global and regional economic conditions; 2) supply and demand for semiconductors or, more specifically, capacity utilization and production volume of manufacturers of semiconductors, silicon wafers, solar cells and microelectrical mechanical systems (“MEMS”); and 3) the profitability and capital resources of those manufacturers. For this and other reasons, our results of operations for past periods may not necessarily be indicative of future operating results.

Our business has historically been subject to cyclical industry conditions. As a result, we have experienced significant fluctuations in our quarterly new orders and net revenues, both within and across years. Examples of these significant fluctuations are the large swings in revenues and income between the first and second quarters of 2004 and the third and fourth quarters of 2003. Demand for semiconductor and silicon wafer manufacturing equipment and related consumable products has also been volatile as a result of sudden changes in semiconductor supply and demand and other factors in both semiconductor devices and wafer fabrication processes. Our orders tend to be more volatile than our revenues, as any change in demand is reflected immediately in orders booked, which are net of cancellations, while revenues tend to be recognized over multiple quarters as a result of procurement and production lead times and the deferral of certain revenues under our revenue recognition policies. Customer delivery schedules on large system orders, and the timing of revenue recognition under our accounting policies, can also add to this volatility.

Net Revenues. Our net revenues for the three months ended March 31, 2004 were \$5.6 million, compared to \$5.4 million for the three months ended March 31, 2003, an increase of 3%. This also represents an increase of \$1.7 million, or 44%, from the \$3.9 million in net revenues for the three months ended December 31, 2003. Net revenues for the six months ended March 31, 2004 were \$9.6 million, compared to \$9.8 million for the six months ended March 31, 2003, a decrease of 2%.

Net revenues of the semiconductor equipment segment decreased 8% to \$3.8 million during the second quarter of 2004, compared to the second quarter of 2003. This decrease is the result of the recognition in the second quarter of 2003 of an additional \$0.7 million of previously deferred revenue, resulting from the completion of certain installation and acceptance procedures. Net revenues of this segment increased \$1.1 million, or 43%, during the second quarter of 2004, as compared to the first quarter of 2004. This increase was primarily the result of the January 2004 shipment of two systems that are part of a multi-system order, which were delayed from their originally scheduled shipment date in December 2003. This multi-system order is comprised of the shipment of five systems to a single European customer, of which two systems shipped in January 2004 (originally scheduled for December 2003), two systems are scheduled to ship in the third quarter of 2004 (originally scheduled for February 2004) and the final system is currently scheduled to ship in the fourth quarter of 2004. The delay in the shipment of two of those systems from February 2004 to the third quarter also caused a \$0.6 million increase in work-in-process inventory (“WIP”). Net revenues of this segment decreased 11% to \$6.5 million during the first half of 2004, compared to the first half of 2003. This decline was primarily the result of the recognition in the first half of 2003 of an additional \$0.8 million of previously deferred revenue.

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Net revenues of the polishing supplies segment increased 38% to \$1.8 million during the second quarter of 2004, compared to the second quarter of 2003. Net revenues of this segment increased \$0.6 million, or 45%, during the second quarter of 2004, as compared to the first quarter of 2004. Net revenues of this segment also increased 22% to \$3.1 million during the first half of 2004, compared to the first half of 2003. These increases are the result of increased machine sales during the second quarter of 2004 (including the first sale of our new Model 5400 machine) and a higher level of insert carrier sales, which increased more than 30% from the same periods in 2003 as a result of increased demand from customers for this type of carrier.

The following table reflects new orders⁽¹⁾, shipments and net revenues for each quarter during the current fiscal year and also for our prior two fiscal years, and the backlog as of the end of those periods, on a consolidated basis, as well as for each of our two business segments.

	Fiscal Quarter				Fiscal Year To- Date	Semi- conductor Equipment Segment	Polishing Supplies Segment
	First	Second	Third	Fourth			
(dollars in thousands)							
2004:							
New orders ⁽¹⁾	\$ 3,684	\$ 4,038	\$ —	\$ —	\$ 7,722	\$ 4,652	\$ 3,070
Shipments	3,744	5,697	—	—	9,441	6,335	3,106
Net revenues	3,921	5,631	—	—	9,552	6,461	3,091
Ending backlog	7,408	5,815	—	—	5,815	4,664	1,151
2003:							
New orders ⁽¹⁾	\$ 2,165	\$ 6,477	\$ 7,498	\$ 3,027	\$ 19,167	\$ 13,495	\$ 5,672
Shipments	4,165	4,785	3,396	6,267	18,613	13,313	5,300
Net revenues	4,329	5,448	3,622	6,035	19,434	14,134	5,300
Ending backlog	5,748	6,777	10,653	7,645	7,645	6,473	1,172
2002:							
New orders ⁽¹⁾	\$ 2,213	\$ 519	\$ 6,132	\$ 5,626	\$ 14,490	\$ 9,404	\$ 5,086
Shipments	4,373	3,983	4,189	4,925	17,470	12,348	5,122
Net revenues	5,457	5,577	4,447	5,052	20,533	15,411	5,122
Ending backlog	10,711	5,653	7,338	7,912	7,912	7,112	800

⁽¹⁾ Orders are net of cancellations and also include the change in the U.S. dollar value of orders recorded in Euros by our semiconductor equipment segment.

Net new orders during the second quarter of 2004 were lower than the second quarter of 2003, but were higher than the first quarter of 2004 and the fourth quarter of 2003. We believe that interest in our products remains strong, as evidenced by increasing levels of quotation activity and customer meetings. However, as demonstrated by our history presented in the table above (particularly the four quarters of 2003), order levels have been, and are expected to remain, volatile, at least until there is clearer evidence of improvement in the general economy and the semiconductor equipment industry. A significant portion of that volatility is due to the high sales value of the diffusion furnace systems sold by our semiconductor equipment segment, where one large system or multi-system order can cause a large spike in the orders for a particular quarter. We believe the fact that new orders for the first and second quarters of 2004 were lower than the quarterly average orders booked during 2003 is attributable to such volatility.

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The following table sets forth certain operational data as a percentage of net revenues for the periods indicated:

	Three Months Ended March 31,		Six Months Ended March 31,	
	2004	2003	2004	2003
Net revenues	100.0%	100.0%	100.0%	100.0%
Cost of sales	71.8	81.9	70.9	80.3
Gross margin	28.2	18.1	29.1	19.7
Selling, general and administrative expenses	22.9	22.8	24.6	23.2
Research and development	2.4	2.8	2.8	2.7
Operating income (loss)	2.9%	(7.5)%	1.7%	(6.2)%

Gross Margin. Consolidated gross margin for the three months ended March 31, 2004 was \$1.6 million (28% of net revenues), compared to \$1.0 million (18% of net revenues) for the three months ended March 31, 2003, an increase of 61%. Consolidated gross margin for the six months ended March 31, 2004 was \$2.8 million (29% of net revenues), compared to \$1.9 million (20% of net revenues) for the six months ended March 31, 2003, an increase of 44%.

In the second quarter of 2004, the gross margin of our semiconductor equipment segment increased to 30% of net revenues, compared to 16% in the second quarter of 2003. The gross margin in the second quarter of 2003 was lower primarily due to a very competitive pricing environment, particularly in the Asian markets. The gross margin for this segment increased to 33% of net revenues during the first half of 2004, compared to 20% during the first half of 2003. The increase in gross margin is attributable to the factors discussed above for the increase in gross margin in the second quarter of 2004 and also to increased production activity, which resulted in the absorption of an additional \$0.3 million of manufacturing labor and overhead costs into WIP during the first half of 2004 and caused a \$0.7 million increase in WIP compared to September 30, 2003. This increased WIP was primarily related to the multi-system order discussed above.

The gross margin of our polishing supplies segment was 24% of net revenues during the second quarter of both 2004 and 2003. The gross margin for this segment increased to 20% of net revenues in the first half of 2004, compared to 19% in the first half of 2003, due to increased manufacturing efficiencies in this segment in 2004.

Our gross margin has significantly fluctuated in the past, and will continue to fluctuate in the future, based on several factors including, but not limited to, the severity and duration of industry cycles, the timing of revenue recognition under evolving accounting principles, product mix and overhead absorption levels. The timing of revenue recognition has a particularly significant effect on gross margin when the equipment revenue of an order is recognized in one period and the remainder of the revenue attributed to installation, generally 10-20% of the order, is recognized in a later period, because the latter revenue has a significantly higher gross margin.

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Selling, General and Administrative Expenses. Consolidated selling, general and administrative expenses for the three months ended March 31, 2004 and 2003 were relatively consistent at \$1.3 million (22.9% of net revenues) and \$1.2 million (22.8% of net revenues), respectively. Consolidated selling, general and administrative expenses for the six months ended March 31, 2004 and 2003 were \$2.3 million, representing 24.6% of net revenues for the first half of 2004, compared to 23.2% of net revenues for the comparable period in 2003. The increase in this percentage is primarily due to the decline in net revenues, discussed above, as total selling, general and administrative expenses were comparable between these periods.

Research and Development Expenses. During the three months ended March 31, 2004 and 2003, research and development expenses were fairly consistent at \$134,000 and \$155,000, respectively. During the six months ended March 31, 2004 and 2003, research and development expenses were also fairly consistent at \$266,000 and \$259,000, respectively. In order to more accurately reflect research and development expenditures, we reclassified \$51,000 and \$98,000 of expenses previously reflected as cost of sales to research and development in the three and six months ended March 31, 2003, respectively. The reclassified costs primarily relate to the development engineering personnel in our semiconductor equipment segment, which were not separately tracked until 2001. In 2004, development of a new small batch vertical diffusion furnace product accounted for most of these expenses.

Operating Income (Loss). Operating income for the second quarter of 2004 was \$0.2 million, or 2.9% of net revenues, compared to an operating loss of \$0.4 million, or (7.5)% of net revenues, for the second quarter of 2003. Operating income for the first half of 2004 was \$0.2 million, or 1.7% of net revenues, compared to an operating loss of \$0.6 million, or (6.2)% of net revenues, for the same period of 2003. Operating income increased in 2004 as a result of the improvement in gross margin discussed above.

Income Tax Provision. During the first half of 2004, we recorded an income tax provision of \$66,000, compared to an income tax benefit of \$203,000 during the first half of 2003. The effective income tax rate, stated as a percentage of income (loss) before taxes, was 40% in the first half of 2004, compared to 35% in the first half of 2003. The higher effective tax rate in 2004 is primarily due to the increased impact of permanent differences between financial reporting and taxable income. Our future effective income tax rate depends on various factors, such as tax legislation, the geographic composition of our pre-tax income, the level of expenses that are not deductible for tax purposes and the effectiveness of our tax planning strategies.

Net Income (Loss). As a result of the operating results described above, net income for the second quarter of 2004 was \$0.1 million, or \$.03 per diluted share, compared to a net loss for the second quarter of 2003 of \$0.3 million, or \$(.10) per diluted share. Net income for the first half of 2004 was \$0.1 million, or \$.04 per diluted share, compared to a net loss for the first half of 2003 of \$0.4 million, or \$(.14) per diluted share.

Backlog. At March 31, 2004, our order backlog totaled \$5.8 million, a decrease of 22% from the \$7.4 million backlog at December 31, 2003. One European customer accounted for 36% of the backlog as of March 31, 2004. The systems ordered by this customer are part of the multi-system order discussed above, which began shipping in the second quarter of 2004. The remaining systems ordered by this customer are currently scheduled to ship during the third and fourth quarters of 2004.

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The orders included in our backlog are generally credit approved customer purchase orders usually scheduled to ship in the next 12 months. The backlog also includes revenues deferred pursuant to our revenue recognition policies derived from orders that have already been shipped, but which have not met the criteria for recognition. We schedule production of our systems based on order backlog and customer commitments. However, customers may delay the delivery of products or cancel orders suddenly and without sufficient notice, subject to possible cancellation penalties. Due to possible customer changes in delivery schedules and cancellations of orders, our backlog at any particular date is not necessarily indicative of actual sales for any succeeding period. Delays in delivery schedules and/or a reduction of backlog during any particular reporting period could have a material adverse effect on our business, financial position and results of operations. In addition, our backlog does not provide any assurance that we will realize a profit from those orders, or indicate in which period revenue will be recognized.

Liquidity and Capital Resources

At March 31, 2004 and September 30, 2003, cash and cash equivalents were \$7.6 million and \$7.5 million, respectively. Our ratio of current assets to current liabilities was 5.1:1 at March 31, 2004 and 4.9:1 at September 30, 2003. We continue to believe that we have sufficient available liquidity and capital resources for our existing operations and expansion plans.

During the six months ended March 31, 2004, cash and cash equivalents increased by \$0.2 million due to the net cash provided by operating activities. Net income of \$0.1 million plus \$0.2 million of non-cash adjustments for depreciation and amortization, a \$0.5 million decrease in accounts receivable due to cash collections on large system orders and a \$0.2 million increase in customer deposits on pending orders represented the major cash inflows. These cash inflows were offset by a \$0.4 million decrease in accounts payable and a \$0.5 million increase in inventories. The net increase in inventories is comprised of the previously discussed \$0.7 million increase in WIP and a \$0.1 million increase in finished goods for our polishing supplies segment, net of a \$0.3 million decrease in purchased parts and raw materials inventory.

Investing and financing activities and the effect of exchange rates on cash were not significant during the six months ended March 31, 2004.

At March 31, 2004, our principal sources of liquidity consisted of \$7.6 million of cash and cash equivalents. Since the only lien on our assets is a \$0.5 million mortgage loan, we believe that significant amounts of additional liquidity are available from various financing sources. We believe that we have sufficient liquidity for our current operations and for at least certain elements of our growth strategy. One element of our growth strategy is the development of new products, such as the proposed new small batch vertical model for our diffusion furnace line.

Another element of our growth strategy is the acquisition of product lines or businesses that complement our existing product lines and business. In this regard, we recently entered into a definitive agreement with a Japanese-owned company, Kokusai Semiconductor Equipment Corporation ("KSEC"), to acquire KSEC's BTI semiconductor horizontal diffusion furnace operations and assets in the United States and Europe. We estimate the transaction value to be approximately \$4.6 million, including an estimated \$3.3 million to be paid at closing, \$0.3 million of assumed liabilities and up to \$1.0 million to be paid as certain inventories are

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consumed. We will acquire, either through transfer of title or licensing agreements, all of the tangible and intellectual property assets used in KSEC's horizontal diffusion furnace business. However, excluded from the transaction will be those assets used by KSEC's selling, general and administrative functions. The transaction is expected to result in increased profitability and to contribute to an increase in our share of the horizontal furnace market and in our brand recognition. For KSEC's fiscal years ended March 31, 2003 and 2004, the operations being acquired had estimated sales to non-affiliates of approximately \$9.0 million and \$11.0 million, respectively. This transaction is expected to close by the end of June 2004, and is subject to a number of closing conditions. There can be no assurance that all conditions necessary to close this transaction will be met, or that we will be able to successfully integrate this acquisition into our existing operations.

Our currently available cash and cash equivalents are expected to be sufficient for existing operations, planned research and development and the aforementioned acquisition transaction. However, significant unplanned development of new products or the completion of additional significant acquisitions would require additional capital resources that are expected to be obtained from one or more sources of financing, such as a private placement, a public offering, working capital loans or term loans from banks or other financial institutions, equipment leasing, mortgage financing and internally generated cash flow from operations. There can be no assurance of the availability or sufficiency of these or any other source of funding for those purposes.

Critical Accounting Policies

"Management's Discussion and Analysis of Financial Condition and Results of Operations" discusses our consolidated financial statements that have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amount of assets and liabilities at the date of the financial statements, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period.

On an on-going basis, we evaluate our estimates and judgments, including those related to revenue recognition, inventory valuation, accounts receivable collectibility, warranty and impairment of long-lived assets. We base our estimates and judgments on historical experience and on various other factors that we believe to be reasonable under the circumstances. The results of these estimates and judgments form the basis for making conclusions about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

A critical accounting policy is one that is both important to the presentation of our financial position and results of operations, and also requires management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. These uncertainties are discussed in the section entitled "Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations – Trends, Risks and Uncertainties" in our Annual Report on Form 10-K for the fiscal year ended September 30, 2003.

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We continually review our business activities to determine which of our policies meet these criteria. We believe the critical accounting policies discussed in the section entitled "Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations – Critical Accounting Policies" in our Annual Report on Form 10-K for the fiscal year ended September 30, 2003 affect the more significant judgments and estimates used in the preparation of our consolidated financial statements. There have been no significant changes in our critical accounting policies during the six months ended March 31, 2004.

Impact of Recently Issued Accounting Pronouncements

In January 2003, the Financial Accounting Standards Board ("FASB") issued Interpretation No. 46, "Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51" ("FIN 46"). FIN 46 addresses the consolidation by business enterprises of variable interest entities when the equity investors do not have the characteristics of a controlling financial interest (as defined in FIN 46). In December 2003, the FASB revised and superceded FIN 46 with the issuance of FIN 46R in order to address certain implementation issues. We have no contractual or other business relationships with any variable interest entities and, therefore, the adoption of FIN 46R (effective March 31, 2004) did not have an effect on our financial position or results of operations.

In December 2003, the SEC issued Staff Accounting Bulletin ("SAB") No. 104 ("SAB 104"), "Revenue Recognition," which supercedes SAB No. 101 ("SAB 101"), "Revenue Recognition in Financial Statements." SAB 104's primary purpose is to rescind certain accounting guidance contained in SAB 101 related to multiple element revenue arrangements, which were superceded as a result of the issuance of Emerging Issues Task Force Issue 00-21 "Revenue Arrangements with Multiple Deliverables" ("EITF 00-21"). The adoption of SAB 104 did not have an effect on our revenue recognition policies, as such policies were already in accordance with SAB 104 and EITF 00-21. However, depending on the circumstances and contract terms of large multi-system orders, SAB 104 and EITF 00-21 may increase the amount of revenue deferred to periods subsequent to shipment and add to the volatility in our revenues.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to financial market risks, including changes in foreign currency exchange rates and interest rates. Our operations in the United States are conducted in U.S. dollars. Our operation in The Netherlands, a component of the semiconductor equipment segment, conducts business primarily in the Euro and the U.S. dollar. The functional currency of our Netherlands operation is the Euro. The functional currency for all other operating units is the U.S. dollar.

We estimate that more than 90% of our transactions are denominated in one of our two functional currencies or currencies that have fixed exchange rates with one of our functional currencies. As of March 31, 2004, we did not hold any stand alone or separate derivative instruments. We incurred net foreign currency transaction losses of less than \$0.1 million during the six months ended March 31, 2004 and 2003. Our investment in and advances to our Netherlands operation totaled \$4.5 million as of March 31, 2004. A 10% change in the value of the Euro relative to the U.S. dollar would cause an approximately \$0.5 million foreign currency translation adjustment, a type of other comprehensive income (loss), which would be a direct adjustment to our stockholders' equity.

When the value of the Euro increases relative to the value of the U.S. dollar, as it has during 2004 and most of 2003, our operation in The Netherlands becomes less competitive outside the European market, as it must raise prices to those customers that normally make purchases in U.S. dollars, in order to maintain the same profit margins. When this occurs, this operation attempts to have transactions denominated in the Euro and to increase its purchases denominated in U.S. dollars, which become less expensive. When the value of the Euro declines relative to the value of the U.S. dollar, our operation in The Netherlands can be more competitive against United States based equipment suppliers, as the cost of purchases denominated in U.S. dollars becomes more expensive. Because it is difficult to predict the volume of U.S. dollar denominated transactions arising from our Netherlands operation, we do not hedge against the effects of exchange rate changes on future transactions. The Euro was at a relatively high value relative to the U.S. dollar at March 31, 2004, leaving our Netherlands operation at a competitive disadvantage compared to other suppliers based in the United States and increasing the risk of an unfavorable foreign currency translation adjustment, which would be a direct adjustment to stockholders' equity and included in comprehensive income (loss).

ITEM 4. CONTROLS AND PROCEDURES

Our management, including our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), has carried out an evaluation of the effectiveness of our disclosure controls and procedures as of March 31, 2004, pursuant to Exchange Act Rules 13a-15(e) and 15(d)-15(e). Based upon that evaluation, our CEO and CFO have concluded that as of such date, our disclosure controls and procedures in place are adequate to ensure material information, and other information requiring disclosure, is identified and communicated on a timely basis.

There have been no significant changes in our internal controls over financial reporting or in other factors that have materially affected, or are reasonably likely to materially affect, those controls subsequent to the date this evaluation was carried out, including any corrective actions with regard to significant deficiencies and material weaknesses.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

In August 2000, a “P.R. Hoffman Machine Products” was one of 11 companies named in a legal action being brought by North Middleton Township in Carlisle, Pennsylvania, in the Court of Common Pleas, Cumberland County, Pennsylvania, the owner of a landfill allegedly found to be contaminated. We acquired the assets of P.R. Hoffman Machine Products Corporation in an asset transaction consummated on July 1, 1997. The landfill was closed and has not been used by P.R. Hoffman since sometime prior to completion of our acquisition transaction. Therefore, we believe that the named company was the prior owner of the acquired assets. On January 7, 2004, this legal action was dismissed due to the Township’s failure to pursue the action within the statutory time limits.

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

On March 19, 2004, Amtech held its Annual Meeting of Shareholders. Shareholders holding 2,481,319, or 92%, of the 2,700,671 shares outstanding were represented, either by proxy or by those persons in attendance at the meeting. The following five nominees were elected to the Amtech Board of Directors based on the following voting totals:

<u>Election of Directors</u>	<u>For</u>	<u>Withheld</u>
Jong S. Whang	2,467,098	15,488
Robert T. Hass	2,467,419	13,462
Alvin L. Katz	2,463,794	17,460
Robert F. King	2,459,986	20,951
Bruce R. Thaw	2,460,515	20,422

Item 6. Exhibits and Reports on Form 8-K

(a) Exhibits

See the Exhibit Index on page 23 for the listing of exhibits that are filed as part of this Quarterly Report on Form 10-Q.

(b) Reports on Form 8-K

Amtech did not file any Current Reports on Form 8-K during the second quarter of 2004.

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SIGNATURES

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

AMTECH SYSTEMS, INC.

By /s/ Robert T. Hass

Dated: May 13, 2004

Robert T. Hass
Vice President— Finance, Chief Financial Officer and Director
(Principal Financial Officer)

By /s/ Marc P. Padwe

Dated: May 13, 2004

Marc P. Padwe
Corporate Controller
(Principal Accounting Officer)

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EXHIBIT INDEX

Exhibit Number	Description	Page or Method of Filing
31.1	Certification of Chief Executive Officer Pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as Amended.	*
31.2	Certification of Chief Financial Officer Pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as Amended.	*
32.1	Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	*
32.2	Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	*

* Filed herewith.

Exhibit 31.1

AMTECH SYSTEMS, INC. AND ITS SUBSIDIARIES
CERTIFICATION PURSUANT TO RULE 13a-14(a)/15d-14(a)
OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Jong S. Whang, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Amtech Systems, Inc.;

2. Based on my knowledge, this quarterly report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this quarterly report;

3. Based on my knowledge, the financial statements, and other financial information included in this quarterly report, fairly present in all material respects the financial position, results of operations and cash flows of the registrant as of, and for, the periods presented in this quarterly report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and we have:

(a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;

(b) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(c) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

(a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By /s/ Jong S. Whang

Jong S. Whang
President and Chief Executive Officer
Amtech Systems, Inc.

Date: May 13, 2004

AMTECH SYSTEMS, INC. AND ITS SUBSIDIARIES
CERTIFICATION PURSUANT TO RULE 13a-14(a)/15d-14(a)
OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Robert T. Hass, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Amtech Systems, Inc.;
2. Based on my knowledge, this quarterly report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this quarterly report;
3. Based on my knowledge, the financial statements, and other financial information included in this quarterly report, fairly present in all material respects the financial position, results of operations and cash flows of the registrant as of, and for, the periods presented in this quarterly report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and we have:
 - (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;
 - (b) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (c) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
 - (a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

By /s/ Robert T. Hass

Robert T. Hass
Vice President—Finance and Chief Financial Officer
Amtech Systems, Inc.

Date: May 13, 2004

Exhibit 32.1

AMTECH SYSTEMS, INC. AND ITS SUBSIDIARIES
CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Amtech Systems, Inc. (the "Company") on Form 10-Q for the period ended March 31, 2004, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jong S. Whang, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

By /s/ Jong S. Whang

Jong S. Whang
President and Chief Executive Officer

Date: May 13, 2004

AMTECH SYSTEMS, INC. AND ITS SUBSIDIARIES

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Amtech Systems, Inc. (the "Company") on Form 10-Q for the period ended March 31, 2004, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Robert T. Hass, Vice President— Finance and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

By /s/ Robert T. Hass

Robert T. Hass
Vice President—Finance and Chief Financial Officer

Date: May 13, 2004