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: December 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	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: 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. \square Yes \square 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 February 14, 2004: 2,705,121

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CONDENSED CONSOLIDATED BALANCE SHEETS

	December 31, 2004 (Unaudited)	September 30, 2004
ASSETS	(Unaudited)	
CURRENT ASSETS:		
Cash and cash equivalents	\$ 2,134,740	\$ 1,674,352
Accounts receivable (less allowance for doubtful accounts of \$209,000 and \$188,000 at December 31, 2004 and	\$ 2,10 1,7 10	\$ 1,07 .,001
September 30, 2004, respectively)	4,844,673	3,629,17
Inventories	6,862,166	5,993,837
Income taxes receivable	535,907	611,33
Prepaid expenses	312,791	357,47
Total current assets	14,690,277	12,266,174
PROPERTY, PLANT AND EQUIPMENT - net	2,214,454	2,220,172
INTANGIBLE ASSETS - net	1,296,062	1,343,17
GOODWILL - net	816,639	816,639
OTHER ASSETS	2,105	13,374
TOTAL ASSETS	\$ 19,019,537	\$ 16,659,530
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable	\$ 2,159,664	\$ 1,459,19
Current maturities of long term debt	134,861	19,73
Accrued compensation and related taxes	1,107,487	743,60
Accrued warranty expense	274,820	260,33
Deferred profit	912,554	1,031,44
Customer deposits	594,789	210,80
Accrued loss on contract	442,175	363,86
Other accrued liabilities	472,813	441,97
Total current liabilities	6.099.163	4,530,944
LONG-TERM OBLIGATIONS	905,441	473,51
Total liabilities	7,004,604	5,004,454
COMMITMENTS AND CONTINGENCIES (Notes 5, 6 and 7)		
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: 2,705,121 at December 31,		
2004 and September 30, 2004	27,051	27.05
Additional paid-in capital	12,887,986	12,887,98
Accumulated other comprehensive income	791.659	500,27
Accumulated deficit	(1,691,763)	(1,760,23
Total stockholders' equity	12,014,933	11,655,07
Total stockholders equity	\$ 19,019,537	\$ 16,659,530

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

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS For the Three Months Ended December 31, 2004 and 2003

(Unaudited)

	2004	2003
Revenues, net of returns and allowances	\$7,171,722	\$3,920,771
Cost of sales	4,962,947	2,731,774
Gross margin	2,208,775	1,188,997
Selling, general and administrative	1,943,480	1,055,144
Research and development	166,802	132,571
Operating income	98,493	1,282
Interest income (expense), net	(10,018)	2,580
Income before income taxes	88,475	3,862
Income tax provision	20,002	2,000
NET INCOME	<u>\$ 68,473</u>	\$ 1,862
EARNINGS PER SHARE:		
Basic earnings per share	\$.03	\$ —
Weighted average shares outstanding	2,705,121	2,700,084
Diluted earnings per share	\$.02	\$
Weighted average shares outstanding	2,759,653	2,802,739

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

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS For the Three Months Ended December 31, 2004 and 2003

(Unaudited)

	2004	2003
OPERATING ACTIVITIES	¢ (0.472)	A 1.0(A
Net income	\$ 68,473	\$ 1,862
Adjustments to reconcile net income to net cash used in operating activities:	100 ((0	109,626
Depreciation and amortization Write-down of inventory	190,668	/
Provision for doubtful accounts	29,599 6,981	9,932
Deferred income taxes	0,981	(44,679)
	—	19,000
Changes in operating assets and liabilities: Accounts receivable	(995,206)	22,279
Inventories	(611,906)	(789,416
	69,003	(789,416) (94,015)
Prepaid expenses and other assets	616,011	
Accounts payable Accrued liabilities and customer deposits	706,591	(41,455 285,885
Deferred profit		(188,154
Income taxes receivable	(217,033) 89,497	
		(25,955
Net cash used in operating activities	(47,322)	(735,090
INVESTING ACTIVITIES		
Purchases of property, plant and equipment	(34,315)	(38,194
Net cash used in investing activities	(34,315)	(38,194
FINANCING ACTIVITIES		
Common stock issued	_	2,908
Payments on long-term obligations	(5,254)	_,,
Borrowings on long-term obligations	500,000	
Net cash provided by financing activities	494,746	2,908
EFFECT OF EXCHANGE RATE CHANGES ON CASH	47.270	(1,030
EFFECT OF EXCHANGE RATE CHANGES ON CASH	47,279	(1,030
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	460,388	(771,406
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	1,674,352	7,453,069
CASH AND CASH EQUIVALENTS, END OF PERIOD	\$ 2,134,740	\$ 6,681,663
Supplemental Cash Flow Information:		
Cash paid during the period for:		
Interest expense	\$ 15,336	\$ 6,107
Income taxes paid	\$ 15,556 24,752	\$ 0,107
1	27,132	12,780
The accompanying notes are an integral part of these condensed consolidated financial statements		

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

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS THREE MONTHS ENDED DECEMBER 31, 2004 (UNAUDITED)

(1) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Operations and Basis of Presentation — Amtech Systems, Inc., an Arizona corporation ("Amtech"), and its wholly-owned subsidiaries; P. R. Hoffman Machine Products, Inc. ("P. R. Hoffman") and Bruce Technologies, Inc. ("Bruce Technologies"), based in the United States; and Tempress Systems, Inc. ("Tempress") based in The Netherlands, comprise the "Company." Amtech 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 manufacturing support services.

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

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 U.S. generally accepted accounting principles. 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, 2004.

The consolidated results of operations for the three months ended December 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 U. S. 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 reporting period. Actual results could differ from those estimates.

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

	December 31, 2004	September 30, 2004
Deferred Revenues	\$ 912,554	\$ 1,130,796
Deferred Costs		99,355
	\$ 912,554	\$ 1,031,441

Concentrations of Credit Risk — As of December 31, 2004, receivables from one customer amounted to 29% of accounts receivable. In addition, 41% of the work-inprocess inventory ("WIP") at December 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 system ordered by this customer is currently scheduled to ship during the second quarter of 2005. An additional 17% of WIP is attributable to another single customer.

During the three months ended December 31, 2004, net revenues were to customers in the following geographic regions: North America 30%, Asia 38% and Europe 32%. One customer represented 16% and another customer represented 12% of net revenues during the three months ended December 31, 2004.

The Company had assets of \$10.4 million and \$8.6 million in the United States and the Netherlands, respectively, at December 31. 2004. At September 30, 2004, the Company had \$10.8 million and \$5.8 million of net assets in the United States and the Netherlands, respectively.

Inventories — The components of inventories are as follows:

	December 31,	September 30,
	2004	2004
Purchased parts and raw materials	\$ 4,170,844	\$ 4,161,847
Work-in-process	2,082,425	1,185,428
Finished goods	608,897	646,562
	\$ 6,862,166	\$ 5,993,837

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 when disposition occurs and any gain or loss is recognized. Depreciation is computed using the straight-line method. Useful lives for equipment, machinery and leasehold improvements range from three to seven years; for furniture and fixtures from five to ten years; and for buildings twenty years.

The following is a summary of property, plant and equipment:

	December 31, 2004	September 30, 2004
Building and leasehold improvements	\$ 1,031,632	\$ 945,146
Equipment and machinery	1,871,976	1,839,007
Furniture and fixtures	2,437,018	2,287,264
	5,340,626	5,071,417
Accumulated depreciation and amortization	(3,126,172)	(2,851,245)
	\$ 2,214,454	\$ 2,220,172

Goodwill - On October 1, 2002, the Company adopted SFAS No. 142, "Goodwill and Other Intangible Assets." Under SFAS No. 142, goodwill and intangible assets with indefinite lives are no longer subject to amortization, but are tested for impairment at least annually. Accordingly,

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the Company reviews goodwill for impairment on an annual basis, or more frequently if circumstances dictate.

Intangibles - Intangible assets are capitalized and amortized over 5-20 years if the life is determinable. If the life is not determinable, amortization is not recorded.

The following is a summary of intangibles:

	December 31, 2004	September 30, 2004	Lives
Patents	\$ 74,161	\$ 97,002	7 years
Trademarks	592,000	592,000	Indefinite
Non-compete agreements	350,000	350,000	20 years
Customer lists	276,000	276,000	15 years
Backlog/acquired contracts	50,000	50,000	6 months
Technology	102,000	102,000	4 years
	1,444,161	1,467,002	
Accumulated amortization	(148,099)	(123,831)	
	\$ 1,296,062	\$ 1,343,171	

Warranty - The Company provides free of charge a limited warranty, generally for periods of 12 to 24 months, to all purchasers of its new products and systems. The Company records accruals for estimated warranty costs at the time revenue is recognized. Management believes the amounts accrued for future warranty expenditures are sufficient for all warranty costs on systems sold through December 31, 2004.

The following is a summary of activity in accrued warranty expense:

	December 31, 2004
Beginning balance	\$ 260,332
Warranty expenditures	(49)
Reserve adjustment	14,537
Ending balance	<u>\$ 274,820</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:

	Shares	
Name of Plan	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

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 ten 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 December 31, 2004, the Company had 188,000 options available for issuance under the plans.

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

		Three Months Ended December 31,							
	2	004		200)3				
		W	eighted		W	eighted			
			verage			verage			
			kercise	0.1		kercise			
	Options		Price	Options		Price			
Outstanding at beginning of period	439,017	\$	4.83	405,217	\$	4.70			
Granted	—		—	20,000		5.98			
Exercised			_	(2,250)		1.29			
Forfeited			_			—			
Outstanding at end of period	439,017		4.83	422,967		4.78			
Exercisable at end of period	280,917	\$	4.39	216,284	\$	4.02			
Weighted average fair value of options granted during the period	N/A			\$ 2.73					

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:

	Three Mont	hs Ended December 31,
	2004	2003
Risk free interest rate	N/A	4.27%
Expected life	N/A	6 years
Dividend rate	0%	0%
Expected volatility	N/A	40%

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

		onths Ended mber 31,
	2004	2003
Net income, as reported	\$ 68,473	\$ 1,862
Compensation expense, net of tax	67,346	47,475
Net income (loss), pro forma	\$ 1,127	\$ (45,613)
Basic Earnings (Loss) Per Share:		
As reported	\$.03	\$ —
Pro forma	—	(.02)
Diluted Earnings (Loss) Per Share:		
As reported	\$.02	\$ —
Pro forma	_	(.02)

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

	Op	tions Outstanding		Options Exe	rcisable
			Weighted		Weighted
Range of		Remaining	Average		Average
Exercise	Number	Contractual	Exercise	Number	Exercise
Prices	Outstanding	Life	Price	Exercisable	Price
\$1.13 - 1.49	70,017	2.10	\$1.13	70,017	\$ 1.13
1.50 - 1.99	9,000	4.15	1.50	9,000	1.50
2.00 - 3.24	11,600	7.69	2.88	4,934	2.69
3.25 - 4.24	8,500	7.50	3.25	4,000	3.25
4.25 - 5.49	95,900	5.32	4.48	58,900	4.42
5.50 - 6.49	78,000	7.52	5.79	31,400	5.82
6.50 - 6.99	166,000	6.22	6.54	102,666	6.55
	439,017			280,917	

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

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financial statements and notes thereto contained in its Annual Report on Form 10-K for the fiscal year ended September 30, 2004.

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."

(2) EARNINGS PER SHARE

Earnings per share (EPS) are calculated as follows:

		onths Ended nber 31,
	2004	2003
Net income	\$ 68,473	\$ 1,862
Weighted average shares outstanding:		
Common stock	2,705,121	2,700,084
Common stock equivalents (1)	54,532	102,655
Diluted shares	2,759,653	2,802,739
Earnings Per Share:		
Basic	\$.03	\$ —
Diluted	.02	—

(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 months ended December 31, 2004, options and warrants of 339,900 and 59,300 shares, respectively, are excluded from the EPS calculations because they are antidilutive as they had an exercise price greater than the average market price during the period. For the same period ended December 31, 2003, options and warrants of 16,000 and 59,300 shares, respectively, are excluded from the EPS calculation.

(3) COMPREHENSIVE INCOME

		onths Ended mber 31,
	2004	2003
Net income	\$ 68,473	\$ 1,862
Foreign currency translation adjustment	291,384	261,619
Comprehensive income	\$ 359,857	\$ 263,481

(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.

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

		nths Ended iber 31,
	2004	2003
Net revenues:		
Semiconductor equipment	\$ 5,674,479	\$2,657,862
Polishing supplies	1,497,243	1,262,909
	\$7,171,722	\$3,920,771
Operating income (loss):		
Semiconductor equipment	\$ 127,650	\$ 101,985
Polishing supplies	(29,157)	(100,703)
Total operating income	98,493	1,282
Interest income (expense), net	(10,018)	2,580
Income before income taxes	\$ 88,475	\$ 3,862
	December 31, 2004	September 30, 2004
Identifiable assets:		
Semiconductor equipment	\$ 15,430,596	\$12,830,102
Polishing supplies	3,588,941	3,829,428
	\$ 19,019,537	\$ 16,659,530

(5) LONG-TERM OBLIGATIONS

In December 2004, the Company entered into a capital lease to finance a laser cutting tool purchased in the fourth quarter of fiscal 2004. The Company financed \$500,000 at an interest rate of 6.55% with 48 payments due in the amount of \$11,869 each.

(6) ACQUISITION

On July 1, 2004, Amtech acquired, through its wholly owned subsidiaries, Bruce Technologies, Inc. and Tempress Systems, Inc., certain semiconductor horizontal diffusion furnace operations and assets in the United States and Europe from Kokusai Semiconductor Equipment Corporation ("KSEC") and its affiliate Kokusai Electric Europe, GmbH. The cost of the acquisition was approximately \$3.9 million, including \$3.3 million paid at closing, \$0.3 million of transaction costs and the assumption of approximately \$0.3 million in liabilities. Amtech is also required to pay the seller future payments of up to \$1.0 million contingent upon the consumption of inventories transferred at the closing. For KSEC's fiscal years ended March 31, 2003 and 2004, the acquired operations had estimated sales to non-affiliates of approximately

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\$7.5 million and \$11.0 million, respectively. The acquired business will operate as Bruce Technologies, Inc., a wholly-owned subsidiary of Amtech.

The assets acquired principally consist of intellectual property and technology, customer lists, customer contracts, inventories and other tangible property used in connection with the acquired business. Liabilities assumed include obligations under certain contracts, leases and purchase orders and warranty claims for certain products and services under warranty as of the date of the acquisition.

The allocation of the purchase price to the fair value of the assets acquired and liabilities assumed at the date of acquisition is as follows:

Inventories	\$2,346,000
Intangible assets	1,459,000
Property, plant and equipment	54,000
Liabilities assumed	(260,000)
Net assets acquired	\$ 3,599,000

The following consolidated pro forma financial information was prepared assuming that the acquisition had occurred at the beginning of the three months ended December 31, 2003. 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 the period and is not necessarily indicative of results that may be obtained in the future (unaudited):

Revenues	7,157,372
Net income	\$ 169,368
Net income per share:	
Basic	\$ 0.06
Diluted	\$ 0.06

For purposes of the above pro forma presentation, the historical revenues and earnings of Bruce Technologies for the three months ended December 31, 2003 have been combined with the revenues and earnings of Amtech for the three months ended December 31, 2003.

(7) COMMITMENTS AND CONTINGENCIES

Legal Proceedings - The Company may be subject to various legal proceedings and claims that arise in the ordinary course of business. The Company currently believes that resolving these matters will not have a material adverse impact on its financial condition or results of operations.

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 our future financial results, operating results, business strategies, projected costs, products under development, competitive positions and plans and objectives of Amtech and our 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, 2004. 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, 2004 for a more complete understanding of our financial position and results of operations for the three month period ended December 31, 2004. This discussion should also be read in conjunction with the Current Reports on Form 8-K filed by Amtech during 2004, which discuss the details of the acquisition of the semiconductor horizontal diffusion furnace operations and assets from Kokusai Semiconductor Equipment Corporation.

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 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, 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. 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 can also add to this volatility.

Net Revenues. Our net revenues for the three months ended December 31, 2004 were \$7.2 million, compared to \$3.9 million for the three months ended December 31, 2003, an increase of \$5%. We experienced an increase of \$2.3 million, or 47%, from the \$4.9 million in net revenues for the three months ended September 30, 2004.

Net revenues of the semiconductor equipment segment increased 111% to \$5.7 million during the first quarter of 2005, compared to the first quarter of 2004 sales of \$2.7 million. Sales of our new subsidiary, Bruce Technologies contributed \$1.7 million of the increase. An increase in the quantity of system sales contributed to the remaining increase. Net revenues of the semiconductor equipment segment increased 73% to \$5.7 million during the first quarter of 2005, compared to the fourth quarter of 2004. This is primarily the result of the increase in system sales of \$1.7 million by our facility in The Netherlands. A \$0.4 million increase in revenue from September 30, 2004 due to timing of revenue recognition due to customer acceptances also contributed to the increase in sales in the first quarter of 2005.

Net revenues of the polishing supplies segment increased 15% or \$0.2 million to \$1.5 million during the first quarter of 2005, compared to the first quarter of 2004. The increase was primarily due to increases in carrier and insert carrier revenues. Net revenues of this segment decreased \$0.1 million, or 8%, during the first quarter of 2005, as compared to the fourth quarter of 2004.

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 Q				Fiscal ear To-	co	Semi- nductor uipment		olishing upplies
	 First	Second Third Fourth (dollars in thousands)		Date		Segment		Segment			
2005:											
New orders (1)	\$ 8,323	\$		\$ _	\$ —	\$	8,323	\$	6,857	\$	1,466
Shipments	6,952		_	—	—		6,952		5,355		1,497
Net revenues	7,172			_	—		7,172		5,675		1,497
Ending backlog	8,451		_	—	—		8,451		7,367		1,084
			15								

											Semi-		
									Fiscal	с	onductor	Р	olishing
	 Fiscal Quarter								Year To-	Equipment		S	upplies
	 First	S	econd		Third	Fourth			Date		Segment	S	egment
						(dollars i	n thousands	5)		_			
2004:													
New orders (1)	\$ 3,684	\$	4,038	\$	4,129	\$	7,103	\$	18,954	\$	12,927	\$	6,027
Shipments	3,744		5,697		5,232		5,136		19,809		13,725		6,084
Net revenues	3,921		5,631		4,835		4,912		19,299		13,215		6,084
Ending backlog	7,408		5,815		5,109		7,300		7,300		6,185		1,115
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
											,		

(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 for the first three months of 2005 increased by \$4.6 million, or 126% compared to the same period in 2004. We believe that interest in our products remains strong, as evidenced by increased levels of quotation activity and customer meetings. As evidenced by the above table, it appears that the Company is experiencing an upturn in business. Orders have been steadily increasing the last six quarters. Shipments have increased since the first quarter of 2004.

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

	Three Months December	
	2004	2003
Net revenues	100.0%	100.0%
Cost of sales	69.2	69.7
Gross margin	30.8	30.3
Selling, general and administrative expenses	27.1	26.9
Research and development	2.3	3.4
Operating income	1.4%	0.0%

Gross Margin. Consolidated gross margin for the three months ended December 31, 2004 was \$2.2 million, or 31% of net revenues; compared to \$1.2 million or 30% of net revenues for the three months ended December 31, 2003, an increase of 1% as a percentage of sales.

In the first quarter of 2005, the gross margin of our semiconductor equipment segment decreased to 34% of net revenues compared to 37% in the first quarter of 2004. The decrease is due to the increase in labor of 5% as a percentage of net revenues, offset by a decrease in material of 2% as a percentage of net revenues.

Also impacting the gross margin of the semiconductor equipment segment in 2005 are the excess costs we have recorded on the pending sale of our first small batch vertical diffusion furnace. The projected future costs to build this initial system have significantly exceeded the contracted selling price. As a result, we recognized an additional \$38,000, or 0.1% of net revenues, of expense during the three months ended December 31, 2004, to reflect the increase in the projected losses on this contract. Actual results for this project could differ from our estimates. Cumulatively, \$442,000 represents the anticipated projected cost overruns for this initial system.

This excess has been recorded as cost of sales. We believe that the engineering and development of this project have progressed to a point that we do not anticipate any further significant increases in the projected loss or actual costs of this project. This system is currently scheduled to ship in the second quarter of 2005. At the date of customer acceptance on this system, we will recognize the full amount of the contracted revenues, with no resulting gross margin due to the cost overruns discussed above. However, if this system is not accepted by the customer, it will have a material adverse effect on our financial position and results of operations.

In the first quarter of 2005, the gross margin of our polishing supplies segment increased to 21% of net revenues, compared to 16% in the first quarter of 2003. This increase is the result of a decrease in material and labor as a percentage of net revenues of 3% and 5%, respectively, offset by an increase in overhead of 3% as a percentage of net revenues.

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 equipment installations and customers acceptances, 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.

Selling, General and Administrative Expenses. Consolidated selling, general and administrative expenses for the three months ended December 31, 2004 and 2003 were \$1.9 million, or 27.1% of net revenues, and \$1.1 million, or 26.9% of net revenues, respectively. The increased expenses in 2005 are the result of an increase in audit fees (\$0.2 million), Bruce Technologies (\$0.4 million) and an increase in personnel (\$0.1 million). In addition, the remaining increase is primarily attributable to the increase of the Euro from the previous period.

Research and Development Expenses. During the three months ended December 31, 2004 and 2003, research and development expenses were \$0.2 million and \$0.1 million, respectively.

Operating Income. Our operating income for the first quarter of 2005 was \$0.1 million, or 1.4% of net revenues, compared to a near break-even operating income for the first quarter of 2004. The increase in our operating income is a result of higher gross margins in the first quarter of 2005 as compared to the first quarter of 2004.

Income Tax Expense. In 2004, the Company recorded a valuation allowance for the total deferred tax assets. As we recognize profits, the Company will offset the income tax expense by the reversal of the valuation allowance, up to the current tax expense, until fully reversed or until it has been determined the valuation allowance is no longer needed. Net operating loss carryforwards are not available to offset the entire federal alternative minimum taxable income. As a result, the tax expense recorded during the first quarter of 2005 only reflects the alternative minimum tax and certain state taxes. The effective tax rate for the period ended December 2004 and 2003 was 23% and 52%, respectively. 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. As a result of the operating results described above, our net income for the first quarter of 2005 was \$0.1 million, or \$.03 and \$.02 per basic and diluted share, respectively, compared to a near break-even for the first quarter of 2004.

Backlog. At December 31, 2004, our order backlog totaled \$8.5 million, an increase of 16% from the \$7.3 million backlog at September 30, 2004. Two customers, one in Europe and one in the United States, accounted for 25% of the \$8.5 million backlog as of December 31, 2004. 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 derived from orders that have already been shipped, but which have not met the criteria for revenue 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/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 December 31, 2004 and September 30, 2004, cash and cash equivalents were \$2.1 million and \$1.7 million, respectively. Our ratio of current assets to current liabilities was 2.4:1 at December 31, 2004 and 2.7:1 at September 30, 2004. We continue to believe that we have sufficient available liquidity and capital resources for our existing operations and expansion plans.

During the three months ended December 31, 2004, cash and cash equivalents increased by \$0.5 million due to the financing of a laser cutting machine purchased in the fourth quarter of 2004. A total of \$0.2 million in non-cash adjustments for depreciation and amortization and an increase in accounts payable of \$0.6 million and accrued liabilities and customer deposits of \$0.7 million represented the major cash inflows. These cash inflows were offset by a \$0.6 million increase in inventories, a \$1.0 million increase in accounts receivable and a \$0.2 million decrease in deferred profit on systems awaiting installation and/or customer acceptance. The increase in inventories is comprised of a \$0.8 million increase in work-in-process. The increase in accounts receivable is a result of increased sales during the first quarter of 2005.

Investing activities and the effect of exchange rates on cash were not significant during the three months ended December 31, 2004. Financing activities of \$0.5 million during the first quarter of 2005 was due to the receipt of cash for the financing of a laser cutting machine purchased during the fourth quarter of 2004.

At December 31, 2004, our principal sources of liquidity consisted of \$2.1 million of cash and cash equivalents. Since the only lien on our assets is a \$0.5 million mortgage loan and a security interest in trade receivables of the operation in The Netherlands and the \$0.5 million borrowings for the capital leased asset, we believe that additional sources of 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.

Our available cash and cash equivalents are expected to be sufficient for existing operations and for planned research and development for at least the next 12 months. 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 U. S. generally accepted accounting principles. 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, 2004.

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, 2004 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 three months ended December 31, 2004.

Impact of Recently Issued Accounting Pronouncements

In October 2004, the FASB issued EITF 04-1 "Accounting for Preexisting Relationships between the Parties to a Business Combination", which addresses the accounting for preexisting relationships between the parties to a business combination. The Company does not believe the adoption of this pronouncement will have a material impact on its financial position nor the results of operations.

In October 2004, the FASB issued EITF 04-8 "The Effect of Contingently Convertible Instruments on Diluted Earnings per Share", which addresses when contingently convertible instruments should be included in diluted earnings per share. The Company does not have any contingently convertible instruments based upon market price and does not believe the adoption of this EITF issue will have a material impact on its financial position nor the results of operations.

In December 2004, the FASB issued SFAS No. 123R, "Share-Based Payments", which amends SFAS No. 123, "Accounting for Stock-Based compensation". This statement requires companies to expense the fair value of employee stock options and similar awards and is effective for periods beginning after June 15, 2005. The Company will adopt the provisions of SFAS No. 123R on July 1, 2005. See the pro forma in Note 1 for the impact on current and prior period results using the fair value method as prescribed under SFAS No. 123. The Company is currently evaluating the impact of adopting SFAS No. 123R.

In November 2004, the FASB issued SFAS No. 151, "Inventory Costs," which amends the guidance in ARB No. 43, Chapter 4, "Inventory Pricing," to clarify the accounting for abnormal amounts of idle facility expense, freight, handling costs and wasted material. This Statement requires that those items be recognized as current-period charges regardless of whether they meet the criterion of "so abnormal." In addition, this Statement requires allocation of fixed production overhead to the costs of conversion be based on the normal capacity of the production facilities. The Company is currently evaluating the provisions of SFAS No. 151 and will adopt it on November 1, 2005, as required. The Company believes the adoption of this Statement will not have a material effect on its financial position or results of operations.

In January 2005, the FASB issued FASB Staff Position ("FSP") No. FAS 109-1, "Application of SFAS No. 109 to the Tax Deduction on Qualified Production Activities Provided by the American Jobs Creation Act of 2004". This FSP provides guidance for the accounting of a deduction provided to U. S. manufacturing companies and is effective immediately. The Company believes the adoption of this position currently will not have a material effect of its financial position or results of operations. However, there is no assurance that there will not be a material impact in the future.

In December 2005, the FASB issued SFAS No. 153, "Exchanges of Nonmonetary Assets". SFAS 153 amends APB Opinion 29 concerning the accounting for exchanges of similar productive assets. Such transactions should now be accounted for at fair value, the basic principle for nonmonetary transactions, unless the exchange lacks commercial substance and is effective for periods ending after June 15, 2005. The Company will adopt the provisions of SFAS 153 April 1, 2005 and believes they will not have a material effect of its financial position or results of operations.

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 December 31, 2004, we did not hold any stand alone or separate derivative instruments. We incurred net foreign currency transaction gains or losses of less than \$0.1 million during the three months ended December 31, 2004 and 2003. Our investment in and advances to our Netherlands operation totaled \$2.3 million as of December 31, 2004. A 10% change in the value of the Euro relative to the U.S. dollar would cause an approximately \$0.2 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 2005 and 2004, 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 December 31, 2004, leaving our Netherlands operation at a competitive disadvantage compared to other suppliers based in the United States and increasing the site of a future 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 in place as of December 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 6. Exhibits

(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.

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

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Dated: February 14, 2005

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 officer 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: February 14, 2005

Exhibit 31.2

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 officer 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: February 14, 2005

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 December 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 <u>/s/ Jong S. Whang</u> Jong S. Whang President and Chief Executive Officer Date: February 14, 2005

Exhibit 32.2

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 December 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: February 14, 2005