

**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, 2010

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. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§229.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company)

Smaller Reporting Company

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

Shares of Common Stock outstanding as of February 2, 2011: 9,412,359

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PART I FINANCIAL INFORMATION

ITEM 1. Condensed Consolidated Financial Statements

AMTECH SYSTEMS, INC. AND SUBSIDIARIES

Condensed Consolidated Balance Sheets

(in thousands except share data)

	December 31, 2010	September 30, 2010
	(Unaudited)	
Assets		
Current Assets		
Cash and cash equivalents	\$ 53,207	\$ 56,764
Restricted cash	2,588	6,192
Accounts receivable		
Trade (less allowance for doubtful accounts of \$203 and \$181 at December 31, 2010 and September 30, 2010, respectively)	26,382	9,252
Unbilled and other	20,706	15,231
Inventories	26,681	24,317
Deferred income taxes	3,750	2,130
Other	3,992	2,543
Total current assets	137,306	116,429
Property, Plant and Equipment - Net	9,574	9,577
Deferred Income Taxes - Long Term	3,100	2,660
Intangible Assets - Net	2,236	2,571
Goodwill	4,731	4,839
Other Assets	335	25
Total Assets	\$ 157,282	\$ 136,101

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

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
Condensed Consolidated Balance Sheets
(in thousands except share data)

	December 31, 2010 <u>(Unaudited)</u>	September 30, 2010 <u></u>
Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts payable	\$ 15,783	\$ 12,446
Bank loans and current maturities of long-term debt	105	126
Accrued compensation and related taxes	8,169	8,305
Accrued warranty expense	2,014	1,843
Deferred profit	16,164	11,439
Customer deposits	13,361	8,858
Other accrued liabilities	1,740	1,479
Income taxes payable	8,550	6,320
Total current liabilities	<u>65,886</u>	<u>50,816</u>
Income Taxes Payable Long-term	1,270	1,010
Long-Term Obligations	21	32
Total liabilities	<u>67,177</u>	<u>51,858</u>
Commitments and Contingencies		
Stockholders' Equity		
Preferred stock; 100,000,000 shares authorized; none issued	-	-
Common stock; \$0.01 par value; 100,000,000 shares authorized; shares issued and outstanding: 9,408,815 and 9,209,213 at December 31, 2010 and September 30, 2010, respectively	94	92
Additional paid-in capital	75,241	72,919
Accumulated other comprehensive income (loss)	(2,436)	(982)
Retained Earnings	17,206	12,214
Total stockholders' equity	<u>90,105</u>	<u>84,243</u>
Total Liabilities and Stockholders' Equity	<u>\$ 157,282</u>	<u>\$ 136,101</u>

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

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
Condensed Consolidated Statements of Operations
(Unaudited)
(in thousands, except per share data)

	Three Months Ended December 31,	
	2010	2009
Revenues, net of returns and allowances	\$ 53,712	\$ 15,457
Cost of sales	34,115	10,857
Gross profit	19,597	4,600
Selling, general and administrative	10,397	3,975
Research and development	848	497
Operating income	8,352	128
Interest and other income (expense), net	(30)	2
Income before income taxes	8,322	130
Income tax provision	3,330	50
Net income	\$ 4,992	\$ 80
Earnings Per Share:		
Basic income per share	\$ 0.54	\$ 0.01
Weighted average shares outstanding	9,278	8,972
Diluted income per share	\$ 0.52	\$ 0.01
Weighted average shares outstanding	9,609	9,059

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

AMTECH SYSTEMS, INC. AND SUBSIDIARIES
Condensed Consolidated Statements of Cash Flows
(Unaudited)
(in thousands)

	Three Months Ended December 31,	
	2010	2009
Operating Activities		
Net income	\$ 4,992	\$ 80
Adjustments to reconcile net income to net cash provided by (used in) operating activities:		
Depreciation and amortization	647	424
Write-down of inventory	499	124
Deferred income taxes	(2,075)	(31)
Non-cash share based compensation expense	374	377
Provision for (reversal of) allowance for doubtful accounts	47	(122)
Changes in operating assets and liabilities:		
Restricted cash	3,495	(867)
Accounts receivable	(23,569)	1,171
Inventories	(3,476)	846
Accrued income taxes	2,469	(180)
Prepaid expenses and other assets	(1,838)	(902)
Accounts payable	3,678	222
Accrued liabilities and customer deposits	5,358	(225)
Deferred profit	5,098	(218)
Net cash provided by (used in) operating activities	(4,301)	699
Investing Activities		
Purchases of property, plant and equipment	(609)	(373)
Net cash used in investing activities	(609)	(373)
Financing Activities		
Proceeds from issuance of common stock	1,223	37
Payments on long-term obligations	(31)	(31)
Excess tax benefit of stock options	727	-
Net cash provided by financing activities	1,919	6
Effect of Exchange Rate Changes on Cash	(566)	(155)
Net Increase (Decrease) in Cash and Cash Equivalents	(3,557)	177
Cash and Cash Equivalents, Beginning of Period	56,764	42,298
Cash and Cash Equivalents, End of Period	\$ 53,207	\$ 42,475
Supplemental Cash Flow Information:		
Interest paid	\$ 2	\$ 4
Income tax refunds	\$ -	\$ 21
Income tax payments	\$ 2,168	\$ 288

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 MONTHS ENDED DECEMBER 31, 2010 AND 2009
(UNAUDITED)

1. Basis of Presentation

Nature of Operations and Basis of Presentation – Amtech Systems, Inc. (the “Company”) designs, assembles, sells and installs capital equipment and related consumables used in the manufacture of solar cells, semiconductors, and wafers of various materials, primarily for the solar and semiconductor industries. The Company sells these products worldwide, particularly in Asia, the United States and Europe.

The Company serves markets in industries that are experiencing rapid technological advances, and which historically have been very cyclical. Therefore, future profitability and growth depend on the Company’s 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, the accompanying unaudited interim condensed consolidated financial statements contain all adjustments necessary, all of which are of a normal recurring nature, to present fairly our financial position, results of operations and cash flows. Certain information and note 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 our Annual Report on Form 10-K for the fiscal year ended September 30, 2010.

The condensed consolidated results of operations for the three months ended December 31, 2010, are not necessarily indicative of the results to be expected for the full fiscal year.

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

Revenue Recognition – Revenue is recognized upon shipment of the Company’s proven technology equal to the sales price less the greater of (i) the fair value of undelivered services and (ii) the contingent portion of the sales price, which is generally 10-20% of the total contract price. The entire cost of the equipment relating to proven technology is recorded upon shipment. The remaining contractual revenue, deferred costs and installation costs are recorded upon successful installation of the product.

For purposes of revenue recognition, proven technology means the Company has a history of at least two successful installations. New technology systems are those systems with respect to which the Company cannot demonstrate that it can meet the provisions of customer acceptance at the time of shipment. The full amount of revenue and costs of new technology shipments is recognized upon the completion of installation at the customers’ premises and acceptance of the product by the customer.

Revenue from services is recognized as the services are performed. Revenue from prepaid service contracts is recognized ratably over the life of the contract. Revenue from spare parts is recorded upon shipment.

Deferred Profit – Revenue deferred pursuant to the Company’s revenue recognition policy, net of the related deferred costs, if any, is recorded as deferred profit in current liabilities. The components of deferred profit are as follows:

	December 31, 2010	September 30, 2010
	(dollars in thousands)	
Deferred revenues	\$ 17,590	\$ 12,577
Deferred costs	1,426	1,138
Deferred profit	<u>\$ 16,164</u>	<u>\$ 11,439</u>

Concentrations of Credit Risk – Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of trade accounts receivable. The Company’s customers, located throughout the world, consist of manufacturers of solar cells, semiconductors, semiconductor wafers and MEMS. Credit risk is managed by performing ongoing credit evaluations of the customers’ financial condition, by requiring significant deposits where appropriate, and by actively monitoring collections. Letters of credit are required of certain customers depending on the size of the order, type of customer or its creditworthiness, and its country of domicile. Reserves for potentially uncollectible receivables are maintained based on an assessment of collectability.

The Company maintains its cash, cash equivalents and restricted cash in multiple financial institutions. Balances in the United States (approximately 50% of total cash balances) are primarily invested in US Treasuries or are in financial institutions insured by the Federal Deposit Insurance Corporation (FDIC). The Company also maintains cash in banks in The Netherlands and France that are uninsured.

As of December 31, 2010, receivables from one customer accounted for 13% of total accounts receivable. As of September 30, 2010, accounts receivable from three customers each exceeded 10% of accounts receivable; these three customers accounted for 25%, 11% and 11% of total accounts receivable, respectively.

Restricted Cash – Current restricted cash of \$2.6 million and \$6.2 million as of December 31, 2010 and September 30, 2010, respectively, consists of collateral for bank guarantees required by certain customers from whom deposits have been received in advance of shipment.

Accounts Receivable - Unbilled and Other – Unbilled and other accounts receivable consist mainly of the contingent portion of the sales price that is not collectible until successful installation and acceptance of the product, which amounts are generally billed upon final acceptance by our customers. The majority of these amounts are offset by balances included in deferred profit. As of December 31, 2010, the unbilled and other includes \$2.9 million of Value Added Tax (VAT) receivables at our European operations. These are taxes paid to our suppliers that will be refunded to the Company by the government.

Inventories – Inventories are stated at the lower of cost or net realizable value. Approximately 90% of inventory are valued on an average cost basis with the remainder determined on a first-in, first-out (FIFO) basis. The components of inventories are as follows:

	December 31, 2010	September 30, 2010
	(dollars in thousands)	
Purchased parts and raw materials	\$ 14,560	\$ 12,894
Work-in-process	9,633	9,497
Finished goods	2,488	1,926
	<u>\$ 26,681</u>	<u>\$ 24,317</u>

Property, Plant and Equipment – Property, plant and equipment are recorded at cost. Maintenance and repairs are charged to expense as incurred. 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 10 years; and for buildings 20 years.

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

	December 31, 2010	September 30, 2010
	(dollars in thousands)	
Land, building and leasehold improvements	\$ 7,914	\$ 8,099
Equipment and machinery	5,012	4,918
Furniture and fixtures	4,339	3,991
	<u>17,265</u>	<u>17,008</u>
Accumulated depreciation and amortization	(7,691)	(7,431)
	<u>\$ 9,574</u>	<u>\$ 9,577</u>

Goodwill – Goodwill is not subject to amortization and is reviewed for impairment on an annual basis, typically at the end of the fiscal year, or more frequently if circumstances dictate.

Intangibles – Intangible assets are capitalized and amortized over two to 10 years.

Long-lived assets are reviewed for impairment when events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable.

The following is a summary of intangibles:

	Useful Life	December 31, 2010	September 30, 2010
		(dollars in thousands)	
Non-compete agreements	8 years	\$ 162	\$ 166
Customer lists	10 years	853	876
Technology	10 years	1,692	1,737
Licenses	10 years	500	890
Other	2-10 years	87	90
		<u>3,294</u>	<u>3,759</u>
Accumulated amortization		(1,058)	(1,188)
		<u>\$ 2,236</u>	<u>\$ 2,571</u>

Warranty – A limited warranty is provided free of charge, generally for periods of 12 to 24 months to all purchasers of the Company’s new products and systems. Accruals are recorded for estimated warranty costs at the time revenue is recognized.

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

	Three Months Ended December 31,	
	2010	2009
	(dollars in thousands)	
Beginning balance	\$ 1,843	\$ 1,429
Warranty expenditures	(254)	(159)
Warranty expense/(adjustment)	425	(55)
Ending balance	<u>\$ 2,014</u>	<u>\$ 1,215</u>

Stock-Based Compensation – The Company measures compensation costs relating to share-based payment transactions based upon the grant-date fair value of the award. Those costs are recognized as expense over the requisite service period, which is generally the vesting period. The benefits of tax deductions in excess of recognized compensation cost are reported as cash flow from financing activities rather than as cash flow from operating activities. Our stock-based compensation plans are summarized in the table below:

Name of Plan	Shares	Shares	Options Outstanding	Plan
	Authorized	Available		Expiration
2007 Employee Stock Incentive Plan	1,400,000	671,987	437,415	Apr. 2017
1998 Employee Stock Option Plan	500,000	-	83,022	Jan. 2008
Non-Employee Directors Stock Option Plan	350,000	126,600	91,853	Jul. 2015
		<u>798,587</u>	<u>612,290</u>	

Stock-based compensation expense recognized reduced the Company's results of operations as follows:

	Three Months Ended December 31,	
	2010	2009
	(dollars in thousands, except per share amounts)	
Effect on income before income taxes (1)	\$ (374)	\$ (377)
Effect on income taxes	167	106
Effect on net income	\$ (207)	\$ (271)

(1) Stock-based compensation expense is included in selling, general and administrative expenses.

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 2020. Under the terms of the 2007 Employee Stock Incentive Plan and the 1998 Employee Stock Option Plan, nonqualified stock options may also be issued. Options issued by the Company vest over one to five years.

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

	Three Months Ended December 31,			
	2010		2009	
	Options	Weighted Average Exercise Price	Options	Weighted Average Exercise Price
Outstanding at beginning of period	636,283	\$ 7.59	691,403	\$ 7.03
Granted	139,233	17.12	102,000	6.44
Exercised	(162,226)	7.54	(7,533)	4.87
Forfeited	(1,000)	6.93	(5,375)	5.40
Outstanding at end of period	<u>612,290</u>	<u>\$ 9.77</u>	<u>780,495</u>	<u>\$ 6.98</u>
Exercisable at end of period	<u>205,068</u>	<u>\$ 7.91</u>	<u>436,681</u>	<u>\$ 7.19</u>
Weighted average fair value of options granted during the period	\$ 10.77		\$ 3.97	

The fair value of options was estimated at the date of grant using the Black-Scholes option pricing model with the following assumptions:

	Three Months Ended December 31,	
	2010	2009
Risk free interest rate	1.67%	2.57%
Expected life	6 years	6 years
Dividend rate	0%	0%
Volatility	70%	68%
Forfeiture rate	4%	5%

To estimate expected lives for this valuation, it was assumed that options will be exercised at varying schedules after becoming fully vested. Forfeitures have been estimated at the time of grant and will be revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Forfeitures were estimated based upon historical experience. Fair value computations are highly sensitive to the volatility factor assumed; the greater the volatility, the higher the computed fair value of the options granted. Total fair value of options granted was approximately \$1.5 million and \$0.4 million for the three months ended December 31, 2010 and 2009.

The Company awards restricted shares under the existing share-based compensation plans. Restricted share awards vest in equal annual installments over a four-year period. The total value of these awards is expensed on a ratable basis over the service period of the employees receiving the grants. The “service period” is the time during which the employees receiving grants must remain employees for the shares granted to fully vest.

Restricted share awards outstanding and transactions are summarized as follows:

	Three Months Ended December 31,			
	2010		2009	
	Awards	Weighted Average Grant Date Fair Value	Awards	Weighted Average Grant Date Fair Value
Beginning Outstanding	128,751	\$ 6.34	122,875	\$ 5.85
Awarded	35,517	17.28	24,000	6.15
Released	(37,376)	6.27	(33,625)	6.46
Forfeited	-	-	(1,250)	8.20
Ending Outstanding	<u>126,892</u>	<u>\$ 9.43</u>	<u>112,000</u>	<u>\$ 5.70</u>

Total fair value of restricted shares awarded was approximately \$0.6 million and \$0.1 million for the three months ended December 31, 2010 and 2009, respectively.

Fair Value of Financial Instruments – *Cash, Cash Equivalents and Restricted Cash* - The carrying amount of these assets on the Company’s Consolidated Balance Sheets approximates their fair value because of the short maturities of these instruments.

Receivables, Payables and Accruals—The recorded amounts of financial instruments, including accounts receivable, accounts payable, and accrued liabilities, approximate their fair value because of the short maturities of these instruments.

Long-term Debt—The carrying values of the Company’s long-term debt approximate fair value because their variable interest rates approximate the prevailing interest rates for similar debt instruments.

Pensions—The Company has retirement plans covering substantially all employees. The principal plans are defined contribution plans, except for the plans of the Company's operations in the Netherlands and France and the plan for hourly union employees in Pennsylvania. The Company's employees in the Netherlands, France and hourly union employees in Pennsylvania participate in a multi-employer plan. Payment to defined contribution plans and the multi-employer plan are recognized as an expense in the Consolidated Statement of Operations as they fall due.

Shipping expense – Shipping expenses of \$1.1 million and \$0.3 million for the three months ended December 31, 2010 and 2009, respectively, are included in selling, general and administrative expenses.

2. Income Taxes

The quarterly income tax provision is calculated using an estimated annual effective tax rate, based upon expected annual income, permanent items, statutory tax rates and planned tax strategies in the various jurisdictions in which the Company operates.

Deferred tax assets and liabilities reflect the tax effects of temporary differences between the carrying value of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The Company records a valuation allowance if, based on the weight of available evidence, it is more likely than not that some portion or the entire deferred tax asset will not be realized. Our expectations regarding realization of our deferred tax assets is based upon the weight of all available evidence, including such factors as our recent earnings history and expected future taxable income. The company maintains a valuation allowance with respect to certain state and foreign net operating losses that may not be recovered. Each quarter the valuation allowance is re-evaluated. During the quarter ended December 31, 2010, no significant changes were made to the valuation allowance.

The Company classifies uncertain tax positions as non-current income taxes payable unless expected to be paid within one year. At December 31, 2010, and September 30, 2010, the total amount of unrecognized tax benefits was \$1.3 million and \$1.0 million, respectively. If recognized, these amounts would favorably impact the effective tax rate.

The Company and one or more of its subsidiaries file income tax returns in The Netherlands, Germany, France and other foreign jurisdictions, as well as the U.S. and various states in the U.S. The Company and its subsidiaries have open tax years primarily from fiscal 2004 to fiscal 2008 with taxing foreign jurisdictions and the U.S. These open years contain certain matters that could be subject to differing interpretations of applicable tax laws and regulations as they relate to the amount, timing, or inclusion of revenues and expenses, or the sustainability of income tax positions of the Company and its subsidiaries.

3. Earnings Per Share

Basic earnings per share (EPS) is computed by dividing net income by the weighted average number of common shares outstanding for the period. Diluted EPS is computed similarly to basic EPS except that the denominator is increased to include the number of additional common shares that would have been outstanding if potentially dilutive common shares had been issued.

For the three months ended December 31, 2010, options for 139,000 shares and no restricted stock award shares are excluded from the diluted EPS calculations because they are anti-dilutive. For the three months ended December 31, 2009, options for 398,000 shares and 22,000 restricted stock award shares are excluded from the diluted EPS calculations because they are anti-dilutive.

	Three Months Ended December 31,	
	2010	2009
(in thousands, except per share amounts)		
Basic Earnings Per Share Computation		
Net income	\$ 4,992	\$ 80
Weighted Average Shares Outstanding:		
Common stock	9,278	8,972
Basic earnings per share	\$ 0.54	\$ 0.01
Diluted Earnings Per Share Computation		
Net income	\$ 4,992	\$ 80
Weighted Average Shares Outstanding:		
Common stock	9,278	8,972
Common stock equivalents (1)	331	87
Diluted shares	9,609	9,059
Diluted earnings per share	\$ 0.52	\$ 0.01

(1) The number of common stock equivalents is calculated using the treasury stock method and the average market price during the period.

4. Comprehensive Income (Loss)

	Three Months Ended December 31,	
	2010	2009
(dollars in thousands)		
Net income, as reported	\$ 4,992	\$ 80
Foreign currency translation adjustment	(1,454)	(647)
Comprehensive income (loss)	\$ 3,538	\$ (567)

5. Major Customers and Foreign Sales

During the three month period ended December 31, 2010, three customers individually represented 17%, 12% and 10% of net revenues. During the three months ended December 31, 2009, two customers individually represented 26% and 24% of net revenues.

Revenues for the three months ended December 31, 2010 and 2009 by geographic region are summarized as follows:

	Three Months Ended	
	December 31,	
	2010	2009
Total North America	7%	10%
China	58%	60%
Taiwan	19%	4%
Other	4%	5%
Total Asia	81%	69%
Total Europe	12%	21%
	100%	100%

6. Commitments and Contingencies

Purchase Obligations – As of December 31, 2010, we had purchase obligations in the amount of \$58.0 million compared to \$40.1 million as of September 30, 2010. These purchase obligations consist of outstanding purchase orders for goods and services. While the amount represents purchase agreements, the actual amounts to be paid may be less in the event that any agreements are renegotiated, cancelled or terminated.

Litigation – The Company is a party to various claims arising in the normal course of business. Management believes the resolution of these matters will not have a material impact on the Company's results of operations or financial condition.

7. Subsequent Events

The Company entered into a Stock Purchase and Sale Agreement (the "Purchase Agreement"), effective as of January 27, 2011, among the Company, Kingstone Technology Hong Kong Limited ("Kingstone"), Silicon Jade Limited ("Silicon Jade"), the sole shareholder of Kingstone, and certain shareholders of Silicon Jade. Pursuant to the Purchase Agreement, the Company will acquire a majority ownership interest in Kingstone, which is a Hong Kong-based holding company that owns 100% of Kingstone Semiconductor Company Ltd ("Kingstone Semiconductor"), a Shanghai-based technology company specializing in ion implant solutions for the solar and semiconductor industries. The acquisition pursuant to the Purchase Agreement will be consummated upon the satisfaction of certain customary closing conditions, including certain required local government filings, all of which the Company anticipates being satisfied in February 2011.

The Company will pay \$5.5 million to Silicon Jade, comprised of (i) a cash payment in the amount of \$1,420,000 and (ii) shares of the Company's common stock with a value of approximately \$4,080,000, and (iii) will pay up to \$4 million to Kingstone in exchange for newly issued Kingstone shares, comprised of (a) a contingent promissory note in the amount of up to \$3,690,000 (the "Stock Purchase Note"), and (b) a cash payment of \$310,000 already paid by the Company pursuant to a prior agreement. In exchange for the purchase price of up to a maximum of \$9.5 million, the Company will receive fifty-five percent of the outstanding stock of Kingstone. The amount of \$3,690,000 will be placed into escrow by the Company to be released in accordance with the terms of the Purchase Agreement and applied to the principal balance of the Stock Purchase Note. If certain termination events occur, relating to the achievement of specified milestones in the development of the Solar Tool, the Company will be relieved of its obligation to make further payments on the Stock Purchase Note, but the Company will retain its ownership of fifty-five percent of Kingstone.

In addition to the purchase price described above, the Company has agreed to provide Kingstone with a loan in the amount of up to \$4 million (the "Solar Tool Loan"), to be used for the development and manufacture of two beta versions of the Solar Tool. Upon successful development of the beta version of the Solar Tool, the outstanding principal amount of the Solar Tool Loan will be applied in full satisfaction of the purchase price of two beta versions of the Solar Tool to be purchased by the Company. The Solar Tool Loan will be funded periodically after the Stock Purchase Note has been paid in full. The Company will place \$4 million into escrow for the purpose of funding the Solar Tool Loan in accordance with the terms of the Purchase Agreement. Upon the occurrence of certain termination events relating to the achievement of specified milestones in the development of the Solar Tool, the Company will be relieved of its obligation to further fund the Solar Tool Loan.

The Company has also agreed to make payments to Kingstone upon the achievement of certain milestones in the development of the Solar Tool. Such payments will be used by Kingstone to pay bonuses to certain key developers who are essential to the development of the Solar Tool. The payments for achievement of the three specified milestones are \$400,000, \$500,000 and \$700,000, for a total obligation of up to \$1.6 million.

If the acquisition does not close pursuant to the Purchase Agreement by April 30, 2011, Kingstone will have the right for a period of 180 days thereafter to terminate the Company's exclusive worldwide sales and service rights to the Solar Tool by repayment to the Company of all amounts provided by the Company prior to such time. Such rights were acquired by the Company pursuant to a previous agreement.

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our condensed consolidated financial statements and the related notes included in Item 1, "Condensed Financial Statement" in this quarterly report on Form 10-Q and our consolidated financial statements and related notes included in Item 8, "Financial Statements and Supplementary Data" in our Annual Report on Form 10-K for the fiscal year ended September 30, 2010.

Cautionary Statement Regarding Forward-Looking Statements

The statements in this report include forward-looking statements. These forward-looking statements are based on our management's current expectations and beliefs and involve numerous risks and uncertainties that could cause actual results to differ materially from expectations. You should not rely upon these forward-looking statements as predictions of future events because we cannot assure you that the events or circumstances reflected in these statements will be achieved or will occur. You can identify forward-looking statements by the use of forward-looking terminology, including the words "believes," "expects," "may," "will," "should," "seeks," "intends," "plans," "estimates" or "anticipates" or the negative of these words and phrases or other variations of these words and phrases or comparable terminology. These forward-looking statements relate to, among other things: our sales, results of operations and anticipated cash flows; capital expenditures; depreciation and amortization expenses; research and development expenses; selling, general and administrative expenses; the development and timing of the introduction of new products and technologies; our ability to maintain and develop relationships with our existing and potential future customers and our ability to maintain the level of investment in research and development and capacity that is required to remain competitive. Many factors could cause our actual results to differ materially from those projected in these forward-looking statements, including, but not limited to: whether we will be able to complete acquisitions and integrate such businesses successfully and achieve anticipated synergies; variability of our revenues and financial performance; risks associated with product development and technological changes; the acceptance of our products in the marketplace by existing and potential future customers; disruption of operations or increases in expenses caused by civil or political unrest or other catastrophic events; general economic conditions and conditions in the solar and semiconductor industries in particular; the continued employment of our key personnel and risks associated with competition.

For a discussion of the factors that could cause actual results to differ materially from the forward-looking statements, see the "Risk Factors" set forth in Item 1A of Part I of Amtech Systems, Inc.'s Annual Report on Form 10-K for the fiscal year ended September 30, 2010, the "Liquidity and Capital Resources" section under "Management's Discussion and Analysis of Financial Condition and Results of Operations" in this item of this report and the other risks and uncertainties that are set forth elsewhere in this report or detailed in our other Securities and Exchange Commission reports and filings. We assume no obligation to update these forward-looking statements.

Introduction

Management's Discussion and Analysis ("MD&A") is intended to facilitate an understanding of our business and results of operations. MD&A consists of the following sections:

- Overview
- Results of Operations
- Liquidity and Capital Resources
- Off – Balance Sheet Arrangements
- Contractual Obligations
- Critical Accounting Policies

Overview

We are a leading supplier of thermal processing systems, including related automation, parts and services, to the solar/photovoltaic, semiconductor, silicon wafer and MEMS industries. We also manufacture polishing templates, steel carriers and double-sided polishing and lapping machines to fabricators of LED's, optics, quartz, ceramics and metal parts, and for manufacturers of medical equipment components.

Our customers are primarily manufacturers of solar cells and integrated circuits. The solar cell and semiconductor industries are cyclical and historically have experienced significant fluctuations. Our revenue is impacted by these broad industry trends.

Results of Operations

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

	Three Months Ended	
	December 31, 2010	December 31, 2009
Net revenue	100%	100%
Cost of goods sold	64%	70%
Gross margin	36%	30%
Operating expenses:		
Selling, general and administrative	19%	26%
Research and Development	2%	3%
Total operating expenses	21%	29%
Income from operations	15%	1%
Interest income (expense), net	0%	0%
Income before income taxes	15%	1%
Income taxes	6%	0%
Net Income	9%	1%

Net Revenue

Net revenue consists of revenue recognized upon shipment or installation of products using proven technology and upon acceptance of products using new technology. In addition, spare parts sales are recognized upon shipment. Service revenue is recognized upon completion of the service activity or ratably over the term of the service contract. The majority of our revenue is generated from large furnace systems sales which, depending on the timing of shipment and installation, can have a significant impact on our revenue, gross margins and earnings in any given period.

Net revenue for the quarters ended December 31, 2010 and 2009 was \$53.7 million and \$15.5 million, respectively; an increase of \$38.2 million, or 247%. Revenue increased primarily due to significantly higher shipments of our equipment to the solar industry, partially offset by an increase in the amount of revenue deferred. Net revenue from the solar market was \$45.9 million and \$11.9 million for the three months ended December 31, 2010 and 2009, respectively; a \$34.0 million or 286% increase.

Backlog and Orders

Our order backlog as of December 31, 2010 and 2009 was \$172.9 million and \$74.4 million, respectively. Our backlog as of December 31, 2010 includes approximately \$162.0 million of orders from our solar industry customers compared to \$69.7 million at December 31, 2009. New orders booked in our most recent quarter ended December 31, 2010 increased more than 130% to \$137.0 million compared to \$59.4 million in the quarter ended December 31, 2009. The increase in new orders and backlog resulted primarily from solar cell manufacturers accelerating their capacity expansion plans. As of December 31, 2010, two customers individually accounted for 24% and 20% of our total backlog, respectively.

The orders included in our backlog are generally credit approved customer purchase orders expected to ship within the next 12 months. Because our orders are typically subject to cancellation or delay by the customer, our backlog at any particular point in time is not necessarily representative of actual sales for succeeding periods, nor is backlog any assurance that we will realize profit from completing these orders. Our backlog also includes revenue deferred pursuant to our revenue recognition policy, derived from orders that have already been shipped, but which have not met the criteria for revenue recognition.

Gross Profit

Gross profit is the difference between net revenue and cost of goods sold. Cost of goods sold consists of purchased material, labor and overhead to manufacture equipment and parts and the cost of service and support to customers for warranty, installation and paid service calls. Gross margin is gross profit as a percent of net revenue.

The timing of revenue recognition can have 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 holdbacks is recognized in a later period. The portion of revenue attributed to the holdbacks generally comprises 10-20% of an order and, typically, has a significantly higher gross margin percentage.

Gross profit for the quarters ended December 31, 2010 and 2009 was \$19.6 million and \$4.6 million, respectively; an increase of \$15.0 million or 326%. Gross margins increased from 30% in the quarter ended December 31, 2009 to 36% in the quarter ended December 31, 2010. Increased gross profit and gross margins were driven by higher volumes which resulted in significantly more efficient capacity utilization, partially offset by higher deferred profit. In the first fiscal quarter ended December 31, 2010, we had a net profit deferral of \$5.1 million compared to a net recognition of \$0.2 million of profit in the quarter ended December 31, 2009.

Selling, General and Administrative

Selling, general and administrative expenses primarily consist of the cost of sales commissions, employees, consultants and contractors, as well as facility costs, outbound shipping expenses, legal and accounting fees and promotional marketing expenses.

Total selling, general and administrative (SG&A) expenses for the quarter ended December 31, 2010 were \$10.4 million or 19% of revenue. For the quarter ended December 31, 2009, SG&A expenses were \$4.0 million or 26% of revenue. SG&A expenses include \$0.4 million of stock-based compensation expense in each of the quarters ended December 31, 2010 and 2009. The increase in SG&A expenses was primarily due to increased commissions and shipping costs related to higher revenues and higher legal and consulting fees, primarily related to acquisition activity.

Research and Development

Research and development expenses consist of the cost of employees, consultants and contractors who design, engineer and develop new products and processes, as well as materials and supplies used in producing prototypes. Reimbursements of research and development costs in the form of governmental research and development grants are netted against these expenses.

	December 31, 2010	December 31, 2009	Increase (Decrease)	%
	(dollars in thousands)			
Research and development	\$ 1,044	\$ 636	\$ 408	64%
Grants earned	(196)	(139)	(57)	41%
Net research and development	\$ 848	\$ 497	\$ 351	71%

Research and development costs for the three months ended December 31, 2010 increased \$0.4 million compared to the three months ended December 31, 2009, due to increases in research in the technology of solar (photovoltaic) cell manufacturing to increase cell efficiency. We receive reimbursements through government research and development grants which are netted against these expenses. As we have increased our research and development activity, we have also increased our efforts to receive grants to fund this research. As a result, the amount of grants earned in the quarter ended December 31, 2010 increased approximately 40% compared to the quarter ended December 31, 2009. We expect the development of an ion implanter for the solar market to cause a significant increase in our research and development expenses over the next two years.

Income Taxes

During the three months ended December 31, 2010, we recorded income taxes of \$3.3 million. The effective tax rate used for calculating the income tax provision for the three months ended December 31, 2010 and December 31, 2009 were approximately 40% and 38%, respectively. The rates are estimates based upon projected annual income, estimated annual permanent differences and statutory tax rates in the various jurisdictions in which we operate.

Liquidity and Capital Resources

At December 31, 2010 and September 30, 2010, cash and cash equivalents were \$53.2 million and \$56.8 million, respectively. At December 31, 2010 and September 30, 2010, restricted cash was \$2.6 million and \$6.2 million, respectively. Restricted cash decreased due to a decline in customers requiring bank guarantees collateralized by cash for their customer deposits. Our working capital as of December 31, 2010 and September 30, 2010 was \$71.4 million and \$65.6 million, respectively. The decrease in cash and cash equivalents resulted primarily from cash used in operations and purchases of property, plant and equipment, partially offset by proceeds from the exercise of stock options. Our ratio of current assets to current liabilities was 2.1:1 and 2.3:1 as of December 31, 2010 and September 30, 2010, respectively. Due to the acquisition of Kingstone Semiconductor Technology in the second quarter of fiscal year 2011, we expect unrestricted cash to decline by approximately \$9.4 million due to the \$1.4 million of cash to be paid to the sellers at closing and an increase of \$8.0 million in restricted cash to be placed into escrow. Also, the increase in customer orders is expected to result in higher operating levels which may result in certain periods where the net cash used for working capital items and potential capital expenditures will exceed net income. We have never paid dividends on our Common Stock. Our present policy is to apply cash to investment in product development, acquisition or expansion; consequently, we do not expect to pay dividends on Common Stock in the foreseeable future. We continue to have minimal long-term debt obligations to service.

The success of our growth strategy is dependent upon the availability of additional capital resources on terms satisfactory to management. Our sources of capital in the past have included the sale of equity securities, which include common and preferred stock sold in private transactions and public offerings, capital leases and long-term debt. There can be no assurance that we can raise such additional capital resources on satisfactory terms. We believe that our principal sources of liquidity discussed above are sufficient to support operations.

Cash Flows from Operating Activities

Cash used by our operating activities was \$4.3 million for the three months ended December 31, 2010, compared to \$0.7 million provided by such activities for the three months ended December 31, 2009. In the first quarter of fiscal 2010, the biggest uses of cash resulted from increases in accounts receivable of \$23.6 million; purchases of inventory of \$3.5 million; and an increase in prepaid expenses of \$1.8 million, primarily for deposits made to our suppliers due to the larger order quantities required to support our growth. These uses of cash were offset by increases in accounts payable, accrued liabilities and deferred profit totaling \$14.1 million as well as a decrease in restricted cash of \$3.5 million. In the first quarter of fiscal 2010, cash was primarily generated from collections of accounts receivable and changes in inventory, partially offset by increases in prepaid expenses and other assets.

Cash Flows from Investing Activities

Our investing activities for the three months ended December 31, 2010 and 2009 used \$0.6 million and \$0.4 million respectively. For the three months ended December 31, 2010 and 2009, we had capital expenditures of \$0.6 million and \$0.4 million, respectively, primarily for machinery and equipment.

Cash Flows from Financing Activities

For the three months ended December 31, 2010, \$1.9 million was provided by financing activities due to proceeds from the exercise of stock options of \$1.2 million and related excess tax benefit of \$0.7 million. This compares to cash used in financing activities of less than \$0.1 million for the three months ended December 31, 2009 for the payment of long-term debt and less than \$0.1 million of cash received from the exercise of stock options.

Off-Balance Sheet Arrangements

As of December 31, 2010, Amtech had no off-balance sheet arrangements as defined in Item 303(a) (4) of Regulation S-K promulgated by the Securities and Exchange Commission.

Contractual Obligations

The only significant changes in contractual obligations since the end of fiscal 2010 have been purchase obligations (See Note 6 of the Condensed Consolidated Financial Statements). Purchase obligations increased \$17.9 million from \$40.1 million as of September 30, 2010 to \$58.0 million as of December 31, 2010. The increase in purchase obligations relates to the continued increase in sales orders and backlog. To meet the increased demand, we accelerated our purchases of inventory. Refer to Amtech's annual report on Form 10-K for the year ended September 30, 2010, for information on the Company's other contractual obligations.

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 consolidated financial statements requires us to make estimates and assumptions that affect the reported amount of assets and liabilities at the date of the consolidated financial statements, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue 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 collectability, 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 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 Part I, Item 1A of the Company's Annual Report on Form 10-K for the year ended September 30, 2010.

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, 2010 represent the most 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, 2010.

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. The functional currency of our European operation is the Euro, the currency primarily used in the conduct of those operations. Nearly all of the transactions, assets and liabilities of all other operating units are denominated in the U.S. dollar, their functional currency. The following disclosures about market risk should be read in conjunction with the more in depth discussion in Item 7A, Quantitative and Qualitative Disclosures About Market Risk in our Annual Report on Form 10-K for the fiscal year ended September 30, 2010.

As of December 31, 2010, 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, 2010 and 2009. As of December 31, 2010, our foreign subsidiaries had \$4.4 million of assets (cash and receivables) denominated in currencies other than the functional currency. A 10% change in the value of the functional currency relative to the non-functional currency would result in a gain or loss of \$0.4 million. As of December 31, 2010, we had \$3.6 million of accounts payable, consisting primarily of amounts owed by our foreign subsidiaries to our U.S. companies, denominated in U.S. dollars. Although the intercompany accounts are eliminated in consolidation, a 10% change in the value of the euro relative to the U.S. dollar would result in a gain or loss of \$0.4 million. The risk associated with foreign currency translation gains and losses may increase with the recent acquisition in China.

We incurred foreign currency translation losses of \$1.5 million and \$0.6 million during the quarters ended December 31, 2010 and 2009, respectively. Our net investment in and advances to our foreign operations totaled \$63.3 million as of December 31, 2010. A 10% change in the value of the euro relative to the U.S. dollar would cause an approximately \$6.3 million foreign currency translation adjustment, a type of other comprehensive income (loss), which would be a direct adjustment to our stockholders' equity. The risk associated with foreign currency translation adjustments is expected to increase with the recent acquisition in China.

During three months ended December 31, 2010 and 2009, our European operations transacted U.S. dollar denominated sales of \$0.7 million and \$0.4 million, respectively. As of December 31, 2010, sales commitments denominated in a currency other than the functional currency of our transacting operation totaled \$1.3 million. Our lead-times to fulfill these commitments generally range between 13 and 26 weeks. A 10% change in the relevant exchange rates between the time the order was taken and the time of shipment would cause our gross profit on such orders to be \$0.1 million greater than or less than expected on the date the order was taken. During the three months ended December 31, 2010 and 2009, our European operations transacted U.S. dollar denominated purchases of \$2.7 million and \$0.6 million, respectively. As of December 31, 2010, purchase commitments denominated in a currency other than the functional currency of our transacting operation totaled \$8.3 million. A 10% change in the relevant exchange rates between the time the purchase order was placed and the time the order is received would cause our cost of such items to be approximately \$0.8 million greater than or less than expected on the date the purchase order was placed.

ITEM 4. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Our management, including the Chief Executive Officer ("CEO") and the Chief Financial Officer ("CFO"), has carried out an evaluation of the effectiveness of our disclosure controls and procedures as of December 31, 2010, 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 effective.

Changes in Internal Control Over Financial Reporting

There has been no change in Amtech's internal control over financial reporting during the first quarter of fiscal 2011 that has materially affected, or is reasonably likely to materially affect, its internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1A. Risk Factors

The most significant risk factors applicable to Amtech are described in Part 1, Item 1A (Risk Factors) of Amtech's Annual Report on Form 10-K for the fiscal year ended September 30, 2010 (our "2010 Form 10-K"). There have been no material changes to the risk factors previously disclosed on our 2010 Form 10-K.

Item 6. Exhibits

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.

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: February 8, 2011

Robert T. Hass
Chief Accounting Officer
(Principal Accounting Officer)

EXHIBIT INDEX

Exhibit Number	Description	Page or Method of Filing
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* Filed herewith.

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. (the "registrant"),
2. Based on my knowledge, this 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 report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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 report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) 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
 - (d) 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 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; and
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
Chief Executive Officer
Amtech Systems, Inc.
Date: February 8, 2011

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, Bradley C. Anderson, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Amtech Systems, Inc. (the "registrant"),
2. Based on my knowledge, this 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 report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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 report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) 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
 - (d) 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 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; and
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/ Bradley C. Anderson
Bradley C. Anderson
Chief Financial Officer
Amtech Systems, Inc.
Date: February 8, 2011

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, 2010, 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
Chief Executive Officer
Date: February 8, 2011

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, 2010, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Bradley C. Anderson, 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/ Bradley C. Anderson

Bradley C. Anderson

Chief Financial Officer

Date: February 8, 2011
