# UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

# **FORM 10-O**

# (Mark One)

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

For the quarterly	period ended:	March 31, 2008	

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)

131 South Clark Drive, Tempe, Arizona

(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. [X] Yes []

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 [ X ] (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 [X]

Shares of Common Stock outstanding as of May 5, 2008: 9,080,048

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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)

	March 31, 2008	September 30, 2007
Assets	(Unaudited)	
Current Assets		
Cash and cash equivalents	\$ 37,848	\$ 18,370
Restricted cash	-	443
Accounts receivable		
Trade (less allowance for doubtful accounts of \$195 and \$126 at	13,618	9,952
March 31, 2008 and September 30, 2007, respectively)		
Unbilled and other	3,859	3,127
Inventories	16,570	7,289
Deferred income taxes	2,768	1,690
Other	2,558	1,339
Total current assets	77,221	42,210
Property, Plant and Equipment - Net	8,559	6,245
Deferred Income Taxes - Long Term	-	30
Intangible Assets - Net	4,284	1,364
Goodwill	3,098	817
Restricted cash - non-current	1,631	
Total Assets	\$ 94,793	\$ 50,666

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

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

March 31,	September 30,
2008	2007

Liabilities and Stockholders' Equity	
--------------------------------------	--

Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts payable	\$ 8,700	\$ 4,150
Bank loans and current maturities of long-term debt	217	224
Accrued compensation and related taxes	2,722	2,139
Accrued warranty expense	591	256
Deferred profit	2,575	2,144
Customer deposits	2,732	1,824
Other accrued liabilities	1,200	562
Income taxes payable	 517	 419
Total current liabilities	19,254	11,718
Income Taxes Payable Long-term	436	-
Deferred Income Taxes Long-term	931	-
Long-Term Obligations	 355	 744
Total liabilities	20,976	12,462
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: 9,074,298 and 6,517,923		
at March 31, 2008 and September 30, 2007	91	65
Additional paid-in capital	69,762	35,610
Accumulated other comprehensive income	2,311	813
Retained Earnings	 1,653	 1,716
Total stockholders' equity	73,817	38,204
Total Liabilities and Stockholders' Equity	\$ 94,793	\$ 50,666

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)

	T	Three Months Ended March 31,			Six Months Ended March 31,			
		2008		2007		2008		2007
Revenues, net of returns and allowances	\$	17,591	\$	10,539	\$	29,332	\$	19,990
Cost of sales		13,464		7,671		21,645		14,730
Gross profit		4,127		2,868		7,687		5,260
Selling, general and administrative		3,966		2,417		7,268		4,636
Research and development		243		141		476		259
Operating income (loss)		(82)		310		(57)		365
Interest and other income (expense), net		348		122		501		143
Income before income taxes		266		432		444		508
Income tax expense		105		170		175		240
Net income	<u>\$</u>	161	\$	262	\$	269	\$	268
Earnings Per Share:								
Basic earnings per share	\$	0.02	\$	0.05	\$	0.03	\$	0.06
Weighted average shares outstanding		9,072		5,193		8,350		4,325
Diluted earnings per share	\$	0.02	\$	0.05	\$	0.03	\$	0.06
Weighted average shares outstanding		9,185		5,255		8,501		4,371

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)

	Six Months En	led March 31,	
	2008	2007	
Operating Activities			
Net income	\$ 269	\$ 268	
Adjustments to reconcile net income to net			
cash used in operating activities:			
Depreciation and amortization	700	329	
Deferred income taxes	(653)	(560	
Non-cash share based compensation expense	229	110	
Other	167	103	
Changes in operating assets and liabilities:			
Accounts receivable	(949)	(1,112	
Inventories	(6,639)	(2,690	
Accrued income taxes	107	272	
Prepaid expenses and other assets	(759)	(299	
Accounts payable	2,821	344	
Accrued liabilities and customer deposits	787	1,883	
Deferred profit	(185)	(40	
Net cash used in operating activities	(4,105)_	(1,398	
envesting Activities			
Purchases of property, plant and equipment	(1,873)	(3,24	
Increase in restricted cash	463		
Investment in R2D	(8,047)		
Net cash used in investing activities	(9,457)	(3,240	
inancing Activities			
Proceeds from issuance of common stock, net	33,869	19,403	
Payments on long-term obligations	(635)	(103	
Borrowings on long-term obligations	-	355	
Net short term borrowings (payments)	-	(11	
Excess tax benefit of stock options	80		
Net cash provided by financing activities	33,314	19,544	
Effect of Exchange Rate Changes on Cash	(274)	(140	
Net Increase in Cash and Cash Equivalents	19,478	14,760	
Cash and Cash Equivalents, Beginning of Period	18,370	6,433	
Cash and Cash Equivalents, End of Period	\$ 37,848	\$ 21,193	
upplemental Cash Flow Information:			
Interest paid	\$ 178	\$ 107	
Income tax payments	\$ 747	\$ 529	

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AMTECH SYSTEMS, INC. AND SUBSIDIARIES NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS THREE AND SIX MONTHS ENDED MARCH 31, 2008 AND 2007 (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 semiconductor industries. The Company sells these products worldwide, particularly in the United States, Asia and Europe. In addition, the Company provides semiconductor manufacturing support services.

The Company serves niche 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, 2007.

The consolidated results of operations for the three and six month periods ended March 31, 2008, are not necessarily indicative of the results to be expected for the full year.

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

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.

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**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:

	March 31, Se 2008		September 30, 2007	
	(dollars in	thousands)		
Deferred revenues	\$ 3,642	\$	3,894	
Deferred costs	 1,067		1,750	
Deferred profit	\$ 2,575	\$	2,144	

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 consist of manufacturers of solar cells, semiconductors, semiconductor wafers, and MEMS located throughout the world. 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 collectibility.

As of March 31, 2008, accounts receivable from one customer accounted for 34% of total accounts receivable.

Restricted Cash – Current restricted cash of \$0.4 million as of September 30, 2007 consists of bank guarantees of certain customer deposits in excess of our European line of credit. As of March 31, 2008 bank guarantees did not exceed our line of credit.

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 of the product. These amounts are generally billed upon final customer acceptance. The majority of these amounts are offset by balances included in deferred profit.

Inventories – Inventories are stated at the lower of cost or net realizable value. Cost for approximately 50% of inventory are determined on an average cost basis with the remainder determined on a first-in, first-out (FIFO) basis. The components of inventories are as follows:

	M	March 31,		ember 30,
		2008		2007
		(dollars in	thousand	ds)
Purchased parts and raw materials	\$	9,701	\$	5,291
Work-in-process		6,008		1,456
Finished goods		861		542
	\$	16,570	\$	7,289

**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:

	2008	2007
	(dollars in	thousands)
Land, building and leasehold improvements	\$ 7,104	\$ 5,105
Equipment and machinery	3,658	2,874
Furniture and fixtures	3,069	2,570
	13,831	10,549
Accumulated depreciation and amortization	(5,272)	(4,304)
	\$ 8,559	\$ 6,245

Goodwill - Goodwill and intangible assets with indefinite lives are not subject to amortization, but are tested for impairment at least annually. The Company accounts for goodwill under the provisions of Statement of Financial Accounting Standards ("SFAS") No. 142. Accordingly, goodwill 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 2 to 15 years if the life is determinable. If the life is not determinable, amortization is not recorded.

On October 8, 2007, the Company acquired, through its wholly-owned subsidiary, Tempress Holding B.V., 100% of the voting equity, in R2D Ingenierie, or R2D, a solar cell and semiconductor automation equipment manufacturing company, located near Montpellier, France.

The intangible assets of R2D principally consist of intellectual property and technology, reseller relationships, customer contracts, trademarks and non-compete agreements totaling \$3.2 million. The valuation of the intangible assets is preliminary and dependent upon final valuation analysis which will be determined with the assistance of an independent third-party consultant. The fair value of intangible assets was determined by a valuation approach that estimates the future economic benefit stream of the asset. This benefit stream was then discounted to present value with an appropriate risk-adjusted discount rate. See Note 9, "Acquisition," for detail of the intangible assets acquired.

The following is a summary of intangibles:

	Useful Life	March 31, 2008	September 30, 2007
			n thousands)
Trademarks	Indefinite	\$ 592	\$ 592
Non-compete agreements	8-10 years	526	350
Customer lists	10-15 years	1,492	276
Technology	4-10 years	1,674	102
Licenses	10 years	300	300
Backlog and other	1-2 years	226	
		4,810	1,620
Accumulated amortization		(526)	(256)
		\$ 4,284	\$ 1,364

Restricted Cash – Non-current – Restricted cash – non-current consists of cash in an escrow account related to contingent payments to be paid to the sellers of R2D upon fulfillment of certain requirements. The amount of future contingent payments earned will be allocated to goodwill.

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:

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	Six Months F	Ended March 31,
	2008	2007
	(dollars i	n thousands)
Beginning balance	\$ 256	\$ 289
Varranty expenditures	(262)	(51)
Provision	350	43
Acquired through business acquisitions	247	
Ending balance	\$ 591	\$ 281

Share-Based Compensation - On October 1, 2005, the Company adopted SFAS No. 123 (R), "Share-Based Payment" ("SFAS 123 (R)") and Staff Accounting Bulletin 107, "Share-Based Payment." SFAS 123 (R) requires the Company to measure 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 Company elected the modified prospective application method of reporting; therefore, prior periods were not restated. Under the modified prospective method, this statement was applied to new awards granted after the time of adoption, as well as to the unvested portion of previously granted awards for which the requisite service had not been rendered as of October 1, 2005. SFAS 123 (R) also requires the benefits of tax deductions in excess of recognized compensation cost to be 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:

	Shares	Shares		Plan
Name of Plan	Authorized	Available	Options Outstanding	Expiration

2007 Employee Stock Incentive Plan 1998 Employee Stock Option Plan	500,000 500,000	396,187	72,313 356,615	Apr. 2017 Jan. 2008
Non-Employee Directors Stock Option Plan	200,000	58,600	69,000	Jul. 2015
		454,787	497,928	

Share-based compensation expense recognized under SFAS 123 (R) reduced the Company's results of operations by the following amounts:

	Three Months Ended March 31,					Six Months Ended March 31			
	2008		2007		7 2008			2007	
	(dollars in thousands, except per share amou					share amount	s)		
Effect on income before income taxes (1)	\$	(128)	\$	(77)	\$	(229)	\$	(110)	
Effect on net income	\$	(104)	\$	(68)	\$	(193)	\$	(96)	
Effect on basic income per share	\$	(0.01)	\$	(0.01)	\$	(0.02)	\$	(0.02)	
Effect on diluted income per share	\$	(0.01)	\$	(0.01)	\$	(0.02)	\$	(0.02)	

## (1) Stock option 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 2018. Under the terms of the 1998 Employee Stock Option Plan, nonqualified stock options may also be issued. Options issued by the Company vest over 1 to 5 years.

Stock option transactions and the options outstanding are summarized as follows:

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	Six Months Ended March 31,						
2	2008						
	v	Veighted		w	eighted		
	A	Average		A	verage		
	Exercise Options Price Options			Exercise			
Options					Price		
450,303	\$	6.44	308,384	\$	5.95		
105,000		14.08	156,250		7.01		
(56,375)		5.22	(2,550)		3.15		
(1,000)		7.00	(1,500)		7.00		
497,928	\$	8.19	460,584	\$	6.32		
265,726	\$	6.48	251,007	\$	5.97		
\$ 8.23			\$ 4.57				

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

	Six Months End	led March 31,
	2008	2007
Risk free interest rate	3.27%	4.69%
Expected life	6 years	6 years
Dividend rate	0%	0%
Volatility	61%	68%
Forfeiture rate	9%	7%

To estimate expected lives for this valuation, it was assumed that options will be exercised at varying schedules after becoming fully vested. In accordance with SFAS 123 (R), 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.

There were 20,000 and 105,000 options granted during the three and six months ended March 31, 2008, respectively; and 86,250 and 156,250 options granted for the comparable periods of fiscal 2007. Total fair value of options granted was approximately \$124,000 and \$864,000 for the three and six months ended March 31 2008, respectively; and \$391,000 and \$714,000 for the comparable periods of fiscal 2007.

In December 2007, we began awarding restricted shares under the existing share-based compensation plans. Our 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. There were 31,500 restricted share awards granted during the six months ended March 31, 2008 with a fair value of \$14.79 per share and a total fair value of \$466,000. There were no restricted shares that vested or were cancelled in the six months ended March 31, 2008.

# Impact of Recently Issued Accounting Pronouncements

In March 2008, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards No. 161, "Disclosures about Derivative Instruments

## 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 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. Statement of Financial Accounting Standards ("SFAS") No. 109 "Accounting for Income Taxes" requires recognition of a valuation allowance if, based on the weight of available evidence, it is more likely than not that some portion or all of the deferred tax asset will not be realized. Each quarter the valuation allowance is reevaluated. During the quarter ended December 31, 2007, the valuation allowance was increased by \$107,000 for net operating losses in certain state and foreign jurisdictions that may not be recovered.

The cumulative effect of the application of the provisions of FIN 48 as of October 1, 2007 resulted in the recognition of an additional tax liability of \$332,000 for uncertain tax positions and a decrease in the October 1, 2007 balance of retained earnings of an equal amount. Upon the adoption of FIN 48, the Company classified uncertain tax positions as non-current income taxes payable unless expected to be paid within one year. The Company intends to maintain a valuation allowance until evidence supports the conclusion that it is more likely than not that the deferred tax asset will be realized. The amount of the valuation allowance at March 31, 2008 and October 1, 2007 was \$560,000 and \$453,000, respectively. At March 31, 2008, and October 1, 2007, the total amount of unrecognized tax benefits was \$436,000 and \$409,000 if recognized these amounts would favorably impact the effective tax rate.

The Company recognizes interest accrued related to unrecognized tax benefits and penalties in the provision for income taxes. As of March 31, 2008, \$132,000 was accrued for the payment of interest and penalties.

The Company and one or more of its subsidiaries file income tax returns in The Netherlands, Germany, the U.S., France and other foreign jurisdictions, as well as various states in the U.S. The Company and its subsidiaries have open tax years primarily from fiscal year 2002 to fiscal 2007 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.

Common shares relating to stock options where the exercise prices exceeded the average market price of our common shares during the period were excluded from the diluted earnings per share calculation as the related impact was antidilutive. For the three and six months ended March 31, 2008, options for 115,000 and 131,625 shares, respectively, are excluded from the diluted EPS calculations because they are antidilutive. For the three and six months ended March 31, 2008, restricted stock awards of 31,500 are excluded from the diluted EPS calculations because they are antidilutive. For the three and six months ended March 31, 2007, options for 20,000 and 39,100 shares, respectively, are excluded from the diluted EPS calculations because they are antidilutive.

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		Three Mon Marc		l 	Six Months Ended March 31,				
		2008		2007	2008			007	
Davis Fourings Day Chaus Commutation	(in thou	ısands, except	per share	amounts)	(in thou	isands, except	per share	amounts)	
Basic Earnings Per Share Computation  Net income available to									
common stockholders	\$	161	\$	262	\$	269	\$	268	
Weighted Average Shares Outstanding:									
Common stock		9,072		5,193		8,350		4,325	
Basic earnings per share	\$	0.02	\$	0.05	\$	0.03	\$	0.06	
Diluted Earnings Per Share Computation									
Net income	\$	161	\$	262	\$	269	\$	268	
Weighted Average Shares Outstanding:									
Common stock		9,072		5,193		8,350		4,325	
Common stock equivalents (1)		113		62		151		46	
Diluted shares		9,185		5,255		8,501		4,371	
Diluted earnings per share	\$	0.02	\$	0.05	\$	0.03	\$	0.06	

(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

		Three Months Ended  March 31,				Six Months Ended  March 31,			
	_								
		2008 2007		07	2008		2007		
			(dollars in th	housands)		(dollars		ousands	)
Net income, as reported		\$	161	\$	262	\$	269	\$	268
Foreign currency translation adjustment	_		1,352		20		1,498		99
Comprehensive income		\$	1,513	\$	282	\$	1,767	\$	367

# 5. Business Segment Information

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

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Information concerning our business segments is as follows:

	 Three Months Ended March 31,				Six Month Marc		d
	2008		2007		2008		2007
Net Revenues:	 (dollars in	thousan	ids)		(dollars in t	thousands)	
Solar and semiconductor equipment	\$ 15,608	\$	8,234	\$	25,605	\$	15,755
Polishing supplies	1,983		2,305		3,727		4,235
	\$ 17,591	\$	10,539	\$	29,332	\$	19,990
Operating Income (loss):							
Solar and semiconductor equipment	\$ (392)	\$	(126)	\$	(510)	\$	(380)
Polishing supplies	310		436		453		745
	 (82)		310		(57)		365
Interest and other income (expense), net	348		122		501		143
Income before income taxes	\$ 266	\$	432	\$	444	\$	508
	March 31,			,	1 31, September 30,		
Identifiable Assets:				(dollars in	thousar	2007	
Solar and semiconductor equipment				\$	`	\$	46,283
Polishing supplies				Ψ	5,092	Ψ	4,383
1 onsuing supplies				\$		\$	50,666
				φ	77,173	φ	50,000

# 6. Major Customers and Foreign Sales

During the three months ended March 31, 2008, two customers represented 20% and 18% of net revenues, individually. During the six months ended March 31, 2008, two customers represented 18% and 13% of net revenues, individually. During the three and six months ended March 31, 2007, one customer represented 15% and 14% of net revenues, respectively.

Our net revenues were to customers in the following geographic regions:

		nths Ended rch 31,
	2008	2007
North America (1)	17%	32%
Asia (2) (3)	59%	46%
Europe	24%	22%
•	100%	100%

- (1) Includes 17% and 31% to the United States in 2008 and 2007, respectively
- (2) Includes 34% and 13% to China in 2008 and 2007, respectively.
- (3) Includes 12% and 19% to Taiwan in 2008 and 2007, respectively.

# 7. Commitments and Contingencies

Purchase Obligations – As of March 31, 2008, we had purchase obligations in the amount of \$14.0 million. 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.

## 8. Issuance of Common Stock

In November 2007, the Company filed registration statements on Form S-1 with the Securities and Exchange Commission for the sale of 2,500,000 shares of its common stock in an underwritten public offering at a price to the public of \$14.41 per share. Net proceeds to the Company were approximately \$33.6 million, net of approximately \$0.3 million of offering expenses and \$2.2 million of underwriting commissions. We intend to use the net proceeds from this offering for working capital and other general corporate purposes. Pending application of these proceeds, we intend to invest the net proceeds in short-term, interest bearing investment grade securities. The Company received \$0.3 million from the exercise of stock options during the six months ended March 31, 2008.

#### 9. Acquisition

Effective October 1, 2007, the Company acquired, through its wholly-owned subsidiary, Tempress Holding B.V., 100% of the voting equity, in R2D Ingenierie, or R2D, a solar cell and semiconductor automation equipment manufacturing company, located near Montpellier, France. R2D provides solutions to the solar and semiconductor industries. The purpose of the acquisition was to expand the Company's automation products which are used in the semiconductor manufacturing and solar diffusion processes. The acquisition of the technology and business of R2D enhances the growth strategy by allowing the Company to increase sales by offering an integrated system under the Tempress brand to the solar industry.

The aggregate purchase price is based on the cash consideration paid at closing of \$5.5 million plus acquisition costs of \$0.9 million, including cost of legal representation and due diligence. Cash contingent payments of \$1.6 million to be paid to sellers upon fulfillment of certain requirements have been deposited in an escrow account. The amount of future contingent payments earned will be allocated to goodwill. The assets of R2D principally consist of intellectual property and technology, reseller relationships, customer contracts, trademarks, non-compete agreements, inventories and other tangible property used in connection with the acquired business. Liabilities assumed include current liabilities, loans, obligations under certain contracts, leases, purchase orders and warranty claims for certain products and services under warranty as of the date of the acquisition.

The valuation of acquired assets is preliminary and dependent upon final valuation of assets acquired, including valuation of intangible assets which will be determined with the assistance of an independent third-party consultant. The fair value of intangible assets will be determined by a valuation approach that estimates the future economic benefit stream of the asset. This benefit stream will be discounted to present value with an appropriate risk-adjusted discount rate.

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 (dollars in thousands):

		Useful Life
Assets Acquired:		
Current Assets	\$ 4,590	
Property, plant & equipment	234	
Intangible assets:		
Non-compete agreements	176	8 years
Customer lists	1,216	10 years
Technology	1,572	10 years
Backlog and other	226	1-10 years
Goodwill	2,282	
Total assets acquired	10,296	
Liabilities Assumed:		
Current Liabilities	2,413	
Long-term liabilities	 1,218	
Total liabilities assumed	3,631	
Net assets acquired	\$ 6,665	

The following consolidated pro forma financial information was prepared assuming that the acquisition had occurred at the beginning of the six months ended March 31, 2007. 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):

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	Months March 31,		Months March 31,
	 007 thousands, exc		007 re amounts)
ues	\$ 11,077	\$	22,060
ne	\$ 296	\$	502
ne per share:			
	\$ 0.06	\$	0.12
iluted	\$ \$ 0.06		0.12

For purposes of the above pro forma presentation, the historical revenues and earnings of R2D for the three and six months ended March 31, 2007 have been combined with the revenues and earnings of Amtech for the three and six months ended March 31, 2007.

# 10. Subsequent Event

In April 2008, Amtech adopted a plan to reduce costs at its Bruce Technologies division which has been affected by the slowdown in the semiconductor industry. Certain personnel were notified of their termination of employment. The restructuring charge is estimated to be approximately \$360,000 and will be recorded in the results of the third quarter of fiscal 2008.

## 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, 2007.

#### 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

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, 2007, 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
- Impact of Recently Issued Accounting Pronouncements

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# Overview

We operate in two segments: the solar and semiconductor equipment segment and the polishing supplies segment. Our solar and semiconductor equipment segment is a leading supplier of thermal processing systems, including related automation, parts and services, to the solar/photovoltaic, semiconductor, silicon wafer and MEMS industries.

Our polishing supplies and equipment segment is a leading supplier of wafer carriers to manufacturers of silicon wafers. The polishing segment also manufactures polishing templates, steel carriers and double-sided polishing and lapping machines for fabricators of 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.

Due to the nature of the capital equipment markets that we serve, our revenues, gross margins and operating results have historically fluctuated on a quarterly basis. Our contracts typically include holdbacks of 10-20% of revenue, which are recognized at the time of customer acceptance.

# **Results of Operations**

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

	Three Mon	ths Ended	Six Month	hs Ended
	March 31, 2008	March 31, 2007	March 31, 2008	March 31, 2007
Net revenue	100%	100%	100%	100%
Cost of goods sold	77%	73%	74%	74%
Gross margin	23%	27%	26%	26%
Operating expenses:				
Selling, general and administrative	22%	23%	24%	23%
Research and Development	1%	1%	2%	1%
Total operating expenses	23%	24%	26%	24%

Income (loss) from operations	(0%)	3%	(0%)	2%
Interest and other income (expense), net	2%	1%	1%	0%
Income before income taxes	2%	4%	1%	2%
Income taxes	1%	2%	0%	1%
Net Income	1%	2%	1%	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 system sales. Timing of shipment, installation and customer acceptance can have a significant impact on our revenue and earnings in any given period. See Critical Accounting Policies – Revenue Recognition.

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	Three Months Ended										Six Months Ended										
Net Revenue		ch 31, 008		arch 31, 2007		Inc. (Dec)	%		arch 31, 2008		arch 31, 2007		Inc. (Dec)	%							
		(	dollars	in thousands	)			(dollars in thousands)													
Solar and Semiconductor																					
Equipment Segment	\$	15,608	\$	8,234	\$	7,374	90%	\$	25,605	\$	15,755	\$	9,850	63%							
Polishing Supplies Segment		1,983		2,305		(322)	(14%)		3,727		4,235		(508)	(12%)							
Total	\$	17,591	\$	10,539	\$	7,052	67%	\$	29,332	\$	19,990	\$	9,342	47%							

Net revenue for the quarter ended March 31, 2008 increased by \$7.1 million, or 67%, compared to the quarter ended March 31, 2007. Revenue from the Solar and Semiconductor Equipment Segment increased \$7.4 million, or 90%, due to significantly higher shipments to the solar industry, partially offset by decreased shipments to the semiconductor industry. The growth in solar shipments was driven by the continuing increase in demand for solar products from our customers and the success of our increased marketing and sales efforts in penetrating the solar market. The decrease in net revenue from the semiconductor industry was due primarily to the overall cyclical downturn in the semiconductor industry. The decrease of \$0.3 million, or 14%, in net revenue from the Polishing Supplies Segment was due primarily to lower insert carrier and polishing machines caused by higher competition in the insert carrier market and the current downturn in the semiconductor industry.

Net revenue for the six months ended March 31, 2008 increased by \$9.3 million, or 47%, compared to the six months ended March 31, 2007. Revenue from the Solar and Semiconductor Equipment Segment increased \$9.9 million, or 63%, due to higher solar product revenues, partially offset by decreased revenues to the semiconductor industry. The decrease of \$0.5 million, or 12%, in net revenue from the Polishing Supplies Segment is due to the factors discussed above.

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

				Second	d Quarter		Year-to-Date					
		Solar and				Se	olar and					
		S	emi-	Pol	ishing		Semi-		Polishing			
		cone	ductor	Su	pplies	Total	co	nductor	St	applies		Total
		Equi	ipment (d		gment n thousands)	ompany	Eq	uipment		egment in thousands)	Co	ompany
200	8:											
	New orders (1)	\$	28,757	\$	3,062	\$ 31,819	\$	63,842	\$	5,003	\$	68,845
	Shipments		15,387		1,963	17,350		24,477		3,731		28,208
	Net revenues		15,608		1,983	17,591		25,605		3,727		29,332
	R2D purchased		-		-	-		1,779		-		1,779
	Backlog 3/31/2008		61,999		2,159	64,158		61,999		2,159		64,158
	Book-to-bill ratio		1.9:1		1.6:1	1.8:1		2.6:1		1.3:1		2.4:1
200	7											
	New orders (1)	\$	6,880	\$	1,647	\$ 8,527	\$	18,457	\$	4,126	\$	22,583
	Shipments		7,837		2,303	10,140		15,872		4,235		20,107
	Net revenues		8,234		2,305	10,539		15,755		4,235		19,990
	Backlog 3/31/2007 (2)		15,316		876	16,192		15,316		876		16,192
	Book-to-bill ratio		0.9:1		0.7:1	0.8:1		1.2:1		1.0:1		1.1:1

- (1) Orders are net of cancellations and include the change in the U.S. dollar value of orders recorded in euros by our solar and semiconductor equipment segment.
- (2) The solar and semiconductor equipment segment backlog as of March 31, 2007 includes \$1.0 million of deferred revenue for which there is an equal amount of deferred costs, i.e. with no gross profit to be realized.

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# Backlog

Our order backlog as of March 31, 2008 and 2007 was \$64.2 million and \$16.2 million, respectively, a 296% increase. Our backlog as of March 31, 2008 includes approximately \$52.6 million of orders from our solar industry customers compared to \$7.3 million of orders from our solar industry customers at March 31, 2007. The orders included in our backlog are generally credit approved customer purchase orders expected to ship within the next twelve 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. We believe the orders included in backlog are probable of being filled and not cancelled. 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 and Gross Margin

Cost of goods sold consists of purchased material, labor and overhead to manufacture equipment and spare parts and the cost of service and factory and field support to customers for warranty, installation and paid service calls. In addition, the cost of outsourcing the assembly or manufacturing of certain systems and subsystems to third parties and supplemental contract field service is included in cost of goods sold.

				Three Mor	nths Ended			Six Months Ended					
	N	March 31, March 31,		Inc.		March 31,		Ma	March 31,		Inc.		
Gross profit		2008 2007		(Dec)	%	2	800	2007		(Dec)		%	
		(dollars in thousands)					(dollars in thousands)						
Solar and Semiconductor													
Equipment Segment	\$	3,455	\$	2,040	\$ 1,415	69%	\$	6,514	\$	3,775	\$	2,739	73%
Polishing Supplies Segment		672		828	(156)	(19%)		1,173		1,485		(312)	(21%)
Total	\$	4,127	\$	2,868	\$ 1,259	44%	\$	7,687	\$	5,260	\$	2,427	46%
Gross margin		23%		27%				26%		26%			

Gross profit for the quarter ended March 31, 2008 increased \$1.3 million or 44% from \$2.9 million in the second quarter of fiscal 2007 to \$4.1 million in the second quarter of fiscal 2008. Gross margin in the second quarter was 23% compared to 27% in the second quarter of fiscal 2007, reflecting the net impact of deferred revenue and deferred profit activity during the second quarter, which included the recognition of \$1.1 million of deferred revenue with no gross profit because there was an equal amount of revenue and cost previously deferred. Lower capacity utilization at Bruce Technologies also negatively impacted margins during the second quarter along with a ramp up of production personnel at our Tempress and R2D facilities. Excluding the net impact of deferred revenue and profit activity, gross margin in the solar and semiconductor equipment segment improved in the second quarter compared to the same quarter in the prior year, primarily due to higher shipment volumes. Gross profit and margins in the polishing supplies segment decreased due to lower revenues and increased competition in the insert carrier market.

Gross profit for the six months ended March 31, 2008 increased \$2.4 million or 46% from \$5.3 million in the first half of fiscal 2007 to \$7.7 million in the first half of fiscal 2008. Gross margin was 26% in both periods. As discussed above, in the second quarter of fiscal 2008 we recognized \$1.1 million of previously deferred revenue with no gross profit. Excluding this negative effect, gross margins improved in the first half of fiscal 2008 when compared to the first half of fiscal 2007. This improvement resulted mainly from the efficiencies realized in the second quarter of fiscal 2008 as discussed above.

## Selling, General and Administrative

Selling, general and administrative expenses consist of the cost of employees, consultants and contractors, facility costs, sales commissions, promotional marketing expenses, legal and accounting expenses.

				Three Mont	ths End	led		Six Months Ended									
Selling, general	March 31, March 31,				Inc.		Ma	March 31,		arch 31,	Inc.						
and administrative	2	2008		2007		(Dec)	%	2	2008	:	2007		(Dec)	%			
		(d	dollars in thousands)					(6	(dollars in thousands)								
Solar and Semiconductor																	
Equipment Segment	\$	3,604	\$	2,026	\$	1,578	78%	\$	6,547	\$	3,896	\$	2,651	68%			
Polishing Supplies Segment		362		391		(29)	(7%)		721		740		(19)	(3%)			
Total	\$	3,966	\$	2,417	\$	1,549	64%	\$	7,268	\$	4,636	\$	2,632	57%			
Percent of net revenue		23%		23%					24%		23%						
		20															

Selling, general and administrative (SG&A) expenses for the quarter ended March 31, 2008 increased \$1.5 million, or 64%, from \$2.4 million to \$4.0 million compared to the quarter ended March 31, 2007. The increase was due primarily to \$0.6 million of increased selling expense for higher revenues generated in regions where third party sales agents are utilized. In addition, we incurred \$0.3 million of expense at R2D for which there were no comparable expenses in the prior year quarter. SG&A expenses include \$0.1 million of stock-based compensation expense in the quarters ended March 31, 2008 and 2007. The remainder of the increase in SG&A resulted from increased depreciation and operating costs for the new building in The Netherlands and increased personnel and consulting costs. The increased personnel and consulting costs include costs incurred to improve internal financial and operational reporting, to comply with the Sarbanes-Oxley Act, and to implement improvements in operational efficiencies.

For the six months ended March 31, 2008, SG&A increased \$2.6 million or 57% compared to the six month period ended March 31, 2007. The increase reflects \$0.6 million of costs incurred by R2D in fiscal 2008 for which there were no comparable expenses in the prior year period. Selling expenses increased \$1.0 million due to increased commissions and increased sales and marketing activity. As previously discussed, personnel costs and professional fees, including costs related to moving our Netherlands operations into our new building, increased as we continued to execute our growth strategies and manage the increasing compliance obligations of a growing multi-national public company.

# 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; materials and supplies used in those activities; and product prototyping.

			Th	ree Montl	ıs Ende	d	Six Months Ended								
	March	31,	Marcl	31,	In	ic.		Marc	h 31,	Marc	eh 31,	I	nc.		
Research and Development	2008		200	7	(De	ec)	%	200	08	20	07	(D	ec)	%	
		(do	llars in t	housands)					(do	ollars in	thousands	)			
Solar and Semiconductor															
Equipment Segment	\$	243	\$	141	\$	102	72%	\$	476	\$	259	\$	217	84%	

Polishing Supplies Segment	-				_	0%	_	_	_	0%	
Total	S	243	\$	141	\$ 102	720/	\$ 476	\$ 259	S	217	9.40/

Research and development costs for the three and six months ended March 31, 2008 increased \$0.1 million and \$0.2 million, respectively compared to the three and six-month periods ended March 31, 2007. The increase results from increased focus on the solar industry and reflects our partnering-based approach, in which our engineering and development teams work closely with our customers to ensure our products are tailored to meet our customers' specific requirements while at the same time minimizing research and development costs.

## Interest and other income (expense), net

Interest and other income (expense), net includes mainly interest income, interest expense and gains and losses on foreign currency transactions.

		TI	hree Mo	nths Ende	ed		_	Six Months Ended									
Interest and other	March	h 31,	March 31,		I	Inc.		March 3	ι,	March 31,			Inc.				
income (expense), net	200	08 2007			(Dec)		2008		008 2		2007		Dec)				
		(dollars in thousands)							(do	ollars in	thousand	s)					
Interest and other income																	
(expense), net	\$	298	\$	107	\$	191	9	504	1	\$	130	\$	374				
Foreign currency gains (losses)		50		15		35	_	(2	3)		13		(16)				
Total	s	348	\$	122	\$	226		501	l	\$	143	\$	358				

Interest income represents earnings on invested funds. Interest expense primarily consists of interest incurred on our overdraft facility, revolving line of credit, equipment financing, and amortization of debt issuance costs. Due to an increase in cash and cash equivalents raised in the secondary public offerings of common stock during the second quarter of fiscal 2007 and the first quarter of fiscal 2008, net interest income increased by \$0.2 million and \$0.4 million, respectively during the three and six months ended March 31, 2008, from the comparable periods in fiscal 2007.

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## Income Taxes

During the three months ended March 31, 2008 and 2007 we recorded income tax provisions of \$0.1 million and \$0.2 million, respectively for an effective tax rate of 39% in both periods. During the six months ended March 31, 2008 and 2007, we recorded income tax provisions of \$0.2 million. The effective tax rates used for calculating the income tax provisions for the six months ended March 31, 2008 and 2007 were approximately 39% and 47%, respectively, based upon estimates of annual income, annual permanent differences, changes in the valuation allowance and statutory tax rates for fiscal 2008 and 2007, respectively, in the various jurisdictions in which we operate. The effective tax rate for the six months ended March 31, 2007 was negatively impacted by permanent differences between financial income and taxable income, which were higher in relation to pre-tax income.

As a result of the application of the provisions of FIN 48 as of October 1, 2007, we recognized an additional tax liability of \$0.3 million for uncertain tax positions and a decrease in the October 1, 2007 balance of retained earnings of an equal amount. Upon the adoption of FIN 48, the Company classified uncertain tax positions as non-current income taxes payable unless expected to be paid within one year. The Company intends to maintain a valuation allowance for state and foreign net operating losses until evidence supports the conclusion that it is more likely than not that those deferred tax assets may be realized. The amount of the valuation allowance at March 31, 2008 and October 1, 2007 was \$0.6 million and \$0.5 million respectively.

# **Liquidity and Capital Resources**

At March 31, 2008 and September 30, 2007, cash and cash equivalents and restricted cash were \$37.8 million and \$18.8 million, respectively. Our working capital increased \$27.5 million to \$58.0 million as of March 31, 2008, compared to \$30.5 million at September 30, 2007. Our ratio of current assets to current liabilities increased to 4.0:1 at March 31, 2008, from 3.6:1 at September 30, 2007. The increase in cash and cash equivalents and working capital and the improvement in the current ratio resulted primarily from the \$33.6 million of net proceeds after deducting expenses raised from the secondary public offering of common stock during November 2007. The increase was partially offset by \$8.0 million invested in the acquisition of R2D and capital expenditures made primarily to improve the manufacturing facility in The Netherlands, which increased the capacity of our solar and semiconductor equipment segment.

At March 31, 2008, our principal sources of liquidity consisted of \$37.8 million of cash and cash equivalents and the \$2.0 million in domestic credit facilities to provide additional liquidity to support future growth. Amtech's revolving line of credit with Silicon Valley Bank contains certain financial and other covenants. Amtech was in compliance with these covenants as of March 31, 2008. The Silicon Valley Bank line of credit expired in April, 2008 and was not immediately renewed.

We have a line of credit in the amount of Euro 1.0 million (approximately \$1.6 million) as of March 31, 2008. The line of credit accrues interest at a rate of 1.75% over a Netherlands bank's basic interest rate (5.5% as of March 31, 2008). The line of credit has no fixed expiration date. The line of credit is secured by trade account receivable in the Netherlands. As of March 31, 2008, bank guarantees in the amount of Euro 0.9 million were secured by this line of credit leaving Euro 0.1 million available. Effective May 1, 2008 the line of credit was reduced to Euro 0.6 million.

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 capital leases, long-term debt and the sale of equity securities, which include common and preferred stock sold in private transactions and public offerings. In the first quarter of fiscal 2008, we utilized approximately \$7.0 million of cash to acquire R2D Ingenierie and made a working capital infusion to R2D of \$1.0 million that was used to satisfy certain outstanding obligations. Cash of \$5.5 million was paid at closing plus acquisition costs of \$0.9 million, including cost of legal representation and due diligence. Cash contingent payments of \$1.6 million to be paid to sellers upon fulfillment of certain requirements have been deposited in an escrow account. R2D is a solar cell and semiconductor automation equipment manufacturing company located near Montpellier, France. Also, in the first quarter of fiscal 2008, we completed the sale of 2,500,000 shares of common stock in a public offering for \$14.41 per share. The net proceeds of the sale of common stock after offering expenses and underwriting fees was approximately \$33.6 million. The availability of such capital resources in the future depends on the condition of the relevant debt or equity markets and our long-term and recent operating performance and financial condition. There can be no assurance that we can raise such additional capital resources on satisfactory terms. We intend to use the net proceeds from this offering for working capital and other general corporate purposes. Pending application of these proceeds, we intend to invest the net proceeds in short-term, interest bearing investment grade securities.

Cash used in our operating activities was \$4.1 million for the six months ended March 31, 2008, compared to \$1.4 million used in such activities for the six months ended March 31, 2007. During the six months ended March 31, 2008 cash was primarily used to finance increases in accounts receivable (0.9 million), inventory (\$6.6 million), prepaid and other assets (\$0.8 million) and deferred profit of (\$0.2 million). This use of cash was partially offset by increases in accounts payable of \$2.8 million and accrued liabilities and customer deposits of \$0.8 million.

# Cash Flows from Investing Activities

Our investing activities for the six months ended March 31, 2008 and 2007 used \$9.5 million and \$3.2 million of cash, respectively. Our investing activities for the six months ended March 31, 2008 used \$8.0 million of cash in the acquisition of R2D. Capital expenditures of \$1.9 million resulted primarily from improvements to the new building in The Netherlands. Restricted cash decreased \$0.4 million. Restricted cash represents bank guarantees in excess of our available credit facility in The Netherlands. During fiscal 2007, the most significant investment was the purchase of a 48,000 sq. ft. manufacturing facility located in Vaassen, The Netherlands for approximately \$3.1 million.

## Cash Flows from Financing Activities

Cash provided by financing activities for the six months ended March 31, 2008 was \$33.3 million. Cash of \$33.6 million was provided by the sale of 2,500,000 shares of common stock in an underwritten public offering at a price to the public of \$14.41 per share. An additional \$0.3 million was provided by the exercise of stock options. These sources of cash were offset by the payment of long-term debt of \$0.6 million. In the second quarter of 2008, we paid the remaining balance of the mortgage on our building in Heerde, The Netherlands in the amount of \$0.5 million. This compares to \$19.5 million of cash provided by financing activities during the six months ended March 31, 2007 which primarily consists of the \$19.4 million, net of expenses, raised in the secondary public offering of the Company's common stock.

## **Off-Balance Sheet Arrangements**

As of March 31, 2008, 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 2007 have been changes in purchase obligations and long-term debt (See Notes 1 and 7 of the Condensed Consolidated Financial Statements). Refer to Amtech's annual report on Form 10-K for the year ended September 30, 2007, 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 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 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 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 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 "Item 1A. Risk Factors" of the Annual Report on Form 10-K for the year ended September 30, 2007. We believe the following critical accounting policies affect the more significant judgments and estimates used in the preparation of our consolidated financial statements.

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**Revenue Recognition.** We review product and service sales contracts with multiple deliverables to determine if separate units of accounting are present in the arrangements. Where separate units of accounting exist, revenue is allocated to delivered items equal to the total sales price less the greater of the relative fair value of the undelivered items, and all contingent portions of the sales arrangement.

We recognize revenue when persuasive evidence of an arrangement exists; the product has been delivered and title has transferred, or services have been rendered; the seller's price to the buyer is fixed or determinable; and collectibility is reasonably assured. For us, this policy generally results in revenue recognition at the following points:

- For the solar and semiconductor equipment segment, transactions where legal title passes to the customer upon shipment, we recognize revenue upon shipment for those products where the customer's defined specifications have been met with at least two similarly configured systems and processes for a comparably situated customer. However, a portion of the revenue associated with certain installation-related tasks, equal to the greater of the relative fair value of those tasks or the portion of the contract price contingent upon their completion, generally 10%-20% of the system's selling price (the "holdback"), and directly related costs, if any, are deferred and recognized into income when the tasks are completed. Since we defer only those costs directly related to installation or other unit of accounting not yet delivered and that portion of the contract price is often considerably greater than the fair market value of those items, our policy at times will result in deferral of profit that is disproportionately greater than the deferred revenue. When this is the case, the gross profit recognized in one period will be lower and the gross profit reported in a subsequent period will improve.
- For products where the customer's defined specifications have not been met with at least two similarly configured systems and processes, the revenue and directly related costs are deferred at the time of shipment and recognized into income at the time of customer acceptance or when this criterion has been met. We have, on occasion, experienced longer than expected delays in receiving cash from certain customers pending final installation or system acceptance. If some of our customers refuse to pay the final payment, or otherwise delay final acceptance or installation, the deferred revenue would not be recognized, adversely affecting our future operating results.
- Equipment sold by the polishing supplies segment does not include process guarantees, acceptance criteria or holdbacks; therefore, the related revenue is recorded upon transfer of title which is generally at time of shipment. Our shipping terms for both segments are customarily FOB our shipping point or equivalent terms.
- For all segments, sales of spare parts and consumables are recognized upon shipment, as there are no post shipment obligations other than standard warranties.

Service revenue is recognized upon performance of the services requested by the customer. Revenue related to service contracts is recognized ratably over the period of
the contract or in accordance with the terms of the contract, which generally coincides with the performance of the services requested by the customer.

Deferred Tax Asset Valuation Allowance. We currently have significant deferred tax assets resulting from expenses not currently deductible for tax purposes, revenue recognized for tax purposes but deferred for financial statement purposes and state net operating loss carryforwards that will reduce taxable income in future periods.

During fiscal 2004, we recorded a valuation allowance for the total of our deferred tax assets. SFAS No. 109 requires a valuation allowance be established when it is "more likely than not" that all or a portion of deferred tax assets will not be realized. It also states that it is difficult to conclude that a valuation allowance is not needed when there is negative evidence such as cumulative losses in recent years. Therefore, the cumulative losses weigh heavily in the overall assessment. Each quarter, Amtech analyzes each deferred tax asset to determine the amount that is more likely than not to be realized, based upon the weight of available evidence, and adjusts the valuation allowance to the amount of deferred taxes that do not meet the criteria for recognition under SFAS No. 109.

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Inventory Valuation. We value our inventory at the lower of cost or net realizable value. Costs for approximately 50% of inventory is determined on an average cost basis with the remainder determined on a first-in, first-out (FIFO) basis. We regularly review inventory quantities and record a write-down for excess and obsolete inventory. The write-down is primarily based on historical inventory usage adjusted for expected changes in product demand and production requirements. However, our industry is characterized by customers in highly cyclical industries, rapid technological changes, frequent new product developments and rapid product obsolescence. Changes in demand for our products and product mix could result in further write-downs.

Allowance for Doubtful Accounts. We maintain an allowance for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments. This allowance is based on historical experience, credit evaluations, specific customer collection history and any customer-specific issues we have identified. Since a significant portion of our revenue is derived from the sale of high-value systems, our accounts receivable are often concentrated in a relatively few number of customers. A significant change in the liquidity or financial position of any one of these customers could have a material adverse impact on the collectibility of our accounts receivable and our future operating results.

Warranty. We provide a limited warranty, generally for 12 to 24 months, to our customers. A provision for the estimated cost of providing warranty coverage is recorded upon shipment of all systems. On occasion, we have been required and may be required in the future to provide additional warranty coverage to ensure that the systems are ultimately accepted or to maintain customer goodwill. While our warranty costs have historically been within our expectations and we believe that the amounts accrued for warranty expenditures are sufficient for all systems sold through March 31, 2008, we cannot guarantee that we will continue to experience a similar level of predictability with regard to warranty costs. In addition, technological changes or previously unknown defects in raw materials or components may result in more extensive and frequent warranty service than anticipated, which could result in an increase in our warranty expense.

Impairment of Long-lived Assets. We periodically evaluate whether events and circumstances have occurred that indicate the estimated useful lives of long-lived assets or intangible assets may warrant revision or that the remaining balance may not be recoverable. Goodwill is also tested for impairment at least annually. When factors indicate that an asset should be evaluated for possible impairment, we use an estimate of the related undiscounted net cash flows generated by the asset over the remaining estimated life of the asset in measuring whether the asset is recoverable. We make judgments and estimates used in establishing the carrying value of long-lived or intangible assets. Those judgments and estimates could be modified if adverse changes occurred in the future resulting in an inability to recover the carrying value of these assets. We have not experienced any impairment to long-lived assets during fiscal 2008, 2007 or 2006. Future adverse changes could be caused by, among other factors, a downturn in the semiconductor industry, a general economic slowdown, reduced demand for our products in the marketplace, poor operating results, the inability to protect intellectual property or changing technologies and product obsolescence.

# Impact of Recently Issued Accounting Pronouncements

For discussion of the impact of recently issued accounting pronouncements, see "Item 1: Financial Information" under "Impact of Recently Issued Accounting Pronouncements".

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# 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 operations in Europe, a component of the solar and semiconductor equipment segment, conduct business primarily in the Euro, but also sell products in Asia in the U.S. dollar. The functional currency of our European operations is the Euro. 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, 2007.

As of March 31, 2008, 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 and six month periods ended March 31, 2008 and 2007. As of March 31, 2008, our foreign subsidiaries had \$2.5 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 nonfunctional currency would result in gains or losses of \$0.3 million. As of March 31, 2008, we had \$3.9 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 functional currency relative to the non-functional currency would result in net gains or losses of \$0.4 million. Our net investment in and long-term advances to our foreign operations totaled \$28.3 million as of March 31, 2008. A 10% change in the value of the Euro relative to the U.S. dollar would cause an approximately \$2.8 million foreign currency translation adjustment, a type of other comprehensive income (loss), which would be a direct adjustment to our stockholders' equity.

During the six months ended March 31, 2008, our European operations transacted U.S. dollar denominated sales and purchases of \$1.3 million and \$1.1 million, respectively. As of March 31, 2008, sales commitments denominated in a currency other than the function currency of our transacting operation totaled \$1.8 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 approximately \$0.2 million greater than or less than expected on the date the order was taken.

# 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 March 31, 2008, 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 six months of fiscal 2008 that has materially affected, or is reasonably likely to materially affect, its internal control over financial reporting.

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## PART II. OTHER INFORMATION

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

## **Election of Directors**

At our annual shareholders' meeting, which was held on March 13, 2008, all nominees standing for election as directors were elected to serve for one year terms or until their successors are elected and qualified. The following chart indicates the number of votes cast for and the number of votes withheld with respect to each nominee for director:

Nominee(1)	For	Withheld
Jong S. Whang	6,511,039	127,334
Michael Garnreiter	6,042,535	595,768
Alfred W. Giese	6,534,014	104,289
Brian L. Hoekstra	6,504,059	134,244
Robert F. King	6,510,970	127,333

(1) Abstentions were not counted in the election of the directors.

## 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\*

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# SIGNATURES

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

AMTECH SYSTEMS, INC.

By /s/ Robert T. Hass Dated: May 14, 2008

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

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# EXHIBIT INDEX

Exhibit		Page or
Number	Description	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	*

<sup>\*</sup> Filed herewith.

\* 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 position, 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)) 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) 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; 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 President and Chief Executive Officer Amtech Systems, Inc. Date: May 14, 2008

# 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 position, 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)) 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) 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; 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: May 14, 2008

# AMTECH SYSTEMS, INC. AND ITS SUBSIDIARIES

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

In connection with the Quarterly Report of Amtech Systems, Inc. (the "Company") on Form 10-Q for the period ended March 31, 2008, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jong S. Whang, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that:

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

By /s/ Jong S. Whang Jong S. Whang President and Chief Executive Officer Date: May 14, 2008

# AMTECH SYSTEMS, INC. AND ITS SUBSIDIARIES

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

In connection with the Quarterly Report of Amtech Systems, Inc. (the "Company") on Form 10-Q for the period ended March 31, 2008, 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: May 14, 2008