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

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE QUARTERLY PERIOD ENDED SEPTEMBER 30, 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: 0-23599

MERCURY COMPUTER SYSTEMS, INC.
(Exact name of registrant as specified in its charter)

MASSACHUSETTS **(State or other jurisdiction of incorporation or organization)**	**04-2741391** **(I.R.S. Employer Identification No.)**
201 RIVERNECK ROAD **CHELMSFORD, MA** **(Address of principal executive offices)**	**01824** **(Zip Code)**

978-256-1300
(Registrant’s telephone number, including area code)

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐ Accelerated filer ☒ Non-accelerated filer ☐ Smaller reporting company ☐

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

Shares of Common Stock outstanding as of October 31, 2008: 22,679,308 shares

MERCURY COMPUTER SYSTEMS, INC.

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PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

MERCURY COMPUTER SYSTEMS, INC.

CONSOLIDATED BALANCE SHEETS
(IN THOUSANDS, EXCEPT PER SHARE DATA)
(unaudited)

	September 30, 2008	June 30, 2008
Assets		
Current assets:		
Cash and cash equivalents	$ 60,926	$ 59,045
Marketable securities	60,027	60,205
Accounts receivable, net of allowance of $780 and $784 at September 30, 2008 and June 30, 2008, respectively	26,988	33,109
Inventory	21,458	24,694
Prepaid expenses and other current assets	5,350	8,752
Current assets of discontinued operations	—	38
Total current assets	174,749	185,843
Marketable securities	46,037	47,231
Property and equipment, net	10,466	11,054
Goodwill	79,256	80,956
Acquired intangible assets, net	6,503	7,488
Other non-current assets	5,744	5,818
Non-current assets of discontinued operations	—	160
Total assets	$ 322,755	$338,550
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	$ 9,950	$ 15,112
Accrued expenses	6,752	7,845
Accrued compensation	10,053	11,781
Accrued warranty expenses	1,783	1,972
Notes payable and current portion of capital lease obligations	125,370	125,301
Income taxes payable	1,022	1,383
Deferred revenues and customer advances	12,275	16,240
Current liabilities of discontinued operations	206	124
Total current liabilities	167,411	179,758
Notes payable and non-current portion of capital lease obligations	14	18
Accrued compensation	1,447	1,709
Deferred tax liabilities, net	285	285
Deferred gain on sale-leaseback	8,738	9,027
Other long-term liabilities	1,290	1,241
Total liabilities	179,185	192,038
Commitments and contingencies (Note J)		
Shareholders' equity:		
Preferred stock, $.01 par value; 1,000,000 shares authorized; no shares issued or outstanding	—	—
Common stock, $.01 par value; 85,000,000 shares authorized; 22,099,674 and 21,972,158 shares issued and outstanding at September 30, 2008 and June 30, 2008, respectively	221	220
Additional paid-in capital	101,618	100,268
Retained earnings	39,271	40,575
Accumulated other comprehensive income	2,460	5,449
Total shareholders' equity	143,570	146,512
Total liabilities and shareholders' equity	$ 322,755	$338,550

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

MERCURY COMPUTER SYSTEMS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS
(IN THOUSANDS, EXCEPT PER SHARE DATA)
(unaudited)

	Three months ended September 30, 2008	Three months ended September 30, 2007
Net revenues	$49,099	$48,008
Cost of revenues	20,817	16,790
Gross profit	28,282	31,218
Operating expenses:		
Selling, general and administrative	15,809	19,109
Research and development	11,883	13,131
Amortization of acquired intangible assets	1,375	1,799
Restructuring	558	55
Total operating expenses	29,625	34,094
Loss from operations	(1,343)	(2,876)
Interest income	997	2,108
Interest expense	(838)	(845)
Other income, net	152	286
Loss from continuing operations before income taxes	(1,032)	(1,327)
Income tax expense	—	1,840
Net loss from continuing operations	(1,032)	(3,167)
Loss from discontinued operations, net of income tax benefit of $0 and $224	(743)	(141)
Gain on sale of discontinued operations, net of income tax expense of $0	471	—
Net loss	$ (1,304)	$ (3,308)
Basic net (loss) earnings per share:		
Continuing operations	$ (0.05)	$ (0.15)
Loss from discontinued operations	(0.03)	—
Gain on sale of discontinued operations	0.02	—
Net loss	$ (0.06)	$ (0.15)
Diluted net (loss) earnings per share:		
Continuing operations	$ (0.05)	$ (0.15)
Loss from discontinued operations	(0.03)	—
Gain on sale of discontinued operations	0.02	—
Net loss	$ (0.06)	$ (0.15)
Weighted-average shares outstanding:		
Basic	22,009	21,474
Diluted	22,009	21,474

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

MERCURY COMPUTER SYSTEMS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(IN THOUSANDS)
(unaudited)

	Three Months Ended September 30, 2008	Three Months Ended September 30, 2007
Cash flows from operating activities:		
Net loss	$ (1,304)	$ (3,308)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation and amortization	3,026	3,987
Stock-based compensation	1,424	2,658
Deferred income taxes	(12)	74
Non-cash interest	211	211
Gross tax windfall from stock-based compensation	(358)	(223)
Gain on sale of discontinued operations	(471)	—
Other non-cash expenses	(306)	(282)
Changes in operating assets and liabilities, net of effects of businesses acquired:		
Accounts receivable	5,920	2,202
Inventory	3,140	(1,160)
Prepaid expenses and other current assets	3,521	3,482
Other assets	169	(80)
Accounts payable and accrued expenses	(7,922)	(6,459)
Deferred revenues and customer advances	(3,708)	1,308
Income taxes payable	(288)	1,409
Other long term liabilities	(406)	143
Net cash provided by operating activities	2,636	3,962
Cash flows from investing activities:		
Purchases of marketable securities	(24,778)	(41,930)
Sales and maturities of marketable securities	24,887	40,566
Purchases of property and equipment	(1,111)	(766)
Acquisition of businesses, net of cash acquired	—	(2,400)
Net cash used in investing activities	(1,002)	(4,530)
Cash flows from financing activities:		
Proceeds from employee stock plans	166	445
Gross tax windfall from stock-based compensation	358	223
Repurchases of common stock	(239)	(278)
Payments of principal under notes payable and of capital lease obligations	(42)	(30)
Net cash provided by financing activities	243	360
Effect of exchange rate changes on cash and cash equivalents	4	160
Net increase (decrease) in cash and cash equivalents	1,881	(48)
Cash and cash equivalents at beginning of period	59,045	51,293
Cash and cash equivalents at end of period	$ 60,926	$ 51,245
Cash (received) paid during the period for:		
Interest	$ —	$ 2
Income taxes, net	(2,804)	98
Supplemental disclosures—non-cash activities:		
Issuance of restricted stock awards to employees	$ 26	$ 721

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

MERCURY COMPUTER SYSTEMS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(AMOUNTS IN THOUSANDS, EXCEPT SHARE AND PER SHARE DATA)

A. Description of Business

Mercury Computer Systems, Inc. (the "Company" or "Mercury") designs, manufactures and markets high-performance computer signal and image processing systems and software for embedded and other specialized computing markets. The Company's primary market segments are aerospace and defense—which includes systems for radar, electronic warfare, sonar, C4I (Command, Control, Communications, Computers, and Intelligence) and electro-optical; life sciences—which includes systems for medical diagnostic imaging & visualization and picture archiving and communication systems (PACS); semiconductor—which includes systems for semiconductor wafer inspection, reticle inspection and mask writing; geosciences—which includes software for oil and gas exploration; and telecommunications applications.

B. Summary of Significant Accounting Policies

BASIS OF PRESENTATION

The accompanying consolidated financial statements have been prepared by the Company in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") for interim financial information and with the instructions to the Form 10-Q and Article 10 of Regulation S-X. Certain information and footnote disclosures, normally included in annual consolidated financial statements have been condensed or omitted pursuant to those rules and regulations; however, in the opinion of management the financial information reflects all adjustments, consisting of adjustments of a normal recurring nature, necessary for fair presentation. These consolidated financial statements should be read in conjunction with the audited financial statements and related notes for the year ended June 30, 2008 which are contained in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC"). The results for the three months ended September 30, 2008 are not necessarily indicative of the results to be expected for the full fiscal year.

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All intercompany transactions and balances have been eliminated. The consolidated financial statements, excluding the statement of cash flows, were restated to reflect the discontinuation and sale of the Biotech business ("Biotech") in the current period and the Embedded Systems and Professional Services ("ES/PS") businesses in the fourth quarter of fiscal year 2008 in accordance with Statement of Financial Accounting Standards ("SFAS") No. 144, *Accounting for the Impairment or Disposal of Long-Lived Asset* (see Note N to the consolidated financial statements).

Effective July 1, 2008, the Company adopted SFAS No. 157, Fair Value Measurements ("SFAS No. 157"), for our financial assets and liabilities that are re-measured and reported at fair value at each reporting period, and non-financial assets and liabilities that are re-measured and reported at fair value at least annually. As permitted by FASB Staff Position ("FSP") No. SFAS 157-2, *Effective Date of FASB Statement No.* 157, the Company has elected to defer implementation of SFAS 157 as it relates to our non-financial assets and non-financial liabilities that are recognized and disclosed at fair value in the financial statements on a nonrecurring basis until July 1, 2009. We are evaluating the impact, if any, this Standard will have on our non-financial assets and liabilities. See Footnote S for a discussion of our adoption of SFAS No. 157.

Effective July 1, 2008, the Company adopted the provisions of SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities—Including an Amendment of FASB Statement No. 115* ("SFAS No. 159"). SFAS No. 159 permits entities to choose to measure eligible items at fair value at specified election dates (the "fair value option") and report unrealized gains and losses on items for which the fair value option has been elected in earnings at each subsequent reporting date. We have not elected the fair value option for any items on our balance sheet.

C. Stock-Based Compensation

STOCK OPTION PLANS

The number of shares authorized for issuance under the Company's 2005 Stock Incentive Plan (the "2005 Plan") is 1,942,264 shares as of the adoption of the 2005 Plan and will be increased by any future cancellations, forfeitures or terminations (other than by exercise) under the Company's 1997 Stock Option Plan. The 2005 Plan provides for the grant of non-qualified and incentive stock options, restricted stock, stock appreciation rights and deferred stock awards to employees and non-employees. All stock options are granted with an exercise price of not less than 100% of the fair value of the Company's common stock at the date of grant and the options have a maximum term of 10 years. There were 518,897 shares available for future grant under the 2005 Plan at September 30, 2008.

The number of shares authorized for issuance under the Company's 1997 Stock Option Plan (the "1997 Plan") is 8,650,000 shares, of which 100,000 shares may be issued pursuant to restricted stock grants. The 1997 Plan provides for the grant of non-qualified and incentive stock options and restricted stock to employees and non-employees. All stock options are granted with an exercise price of not less than 100% of the fair value of the Company's common stock at the date of grant. The options vest over periods of zero to six years and have a maximum term of 10 years. Following shareholder approval of the 2005 Plan on November 14, 2005, the Company's Board of Directors directed that no further grants of stock options or other awards would be made under the 1997 Plan. The foregoing action does not affect any outstanding awards under the 1997 Plan, which remain in full force and effect in accordance with their terms.

EMPLOYEE STOCK PURCHASE PLAN

During 1997, the Company adopted the 1997 Employee Stock Purchase Plan (ESPP) and authorized 500,000 shares for future issuance. In November 2006, the Company's shareholders approved an increase in the number of authorized shares under the ESPP to 800,000 shares. Under the plan, rights are granted to purchase shares of common stock at 85% of the lesser of the market value of such shares at either the beginning or the end of each six-month offering period. The plan permits employees to purchase common stock through payroll deductions, which may not exceed 10% of an employee's compensation as defined in the plan. There were no shares issued under the ESPP during the three months ended September 30, 2008 and 2007. Shares available for future purchase under the ESPP totaled 144,324 at September 30, 2008.

STOCK OPTION AND AWARD ACTIVITY

The following table summarizes activity of the Company's stock option plans since June 30, 2007:

	Options Outstanding		
	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)
Outstanding at June 30, 2007	**2,984,211**	**$ 19.39**	**6.26**
Grants	1,154,400	10.05	
Exercises	(100,828)	7.73	
Cancellations	(305,112)	18.32	
Outstanding at June 30, 2008	**3,732,671**	**$ 16.88**	**6.20**
Grants	188,600	8.27	
Exercises	(21,790)	7.68	
Cancellations	(379,367)	20.92	
Outstanding at September 30, 2008	**3,520,114**	**$ 16.03**	**5.87**

The following table summarizes the status of the Company's nonvested restricted stock awards since June 30, 2007:

	Nonvested Restricted Stock Awards	
	Number of Shares	Weighted Average Grant Date Fair Value
Outstanding at June 30, 2007	**1,291,212**	**$ 13.53**
Granted	264,035	12.44
Vested	(464,381)	13.23
Forfeited	(224,743)	14.18
Outstanding at June 30, 2008	**866,123**	**$ 13.18**
Granted	3,400	7.60
Vested	(132,514)	11.33
Forfeited	(82,904)	12.16
Outstanding at September 30, 2008	**654,105**	**$ 13.66**

STOCK-BASED COMPENSATION ASSUMPTIONS AND EXPENSE

The Company recognized the full impact of its share-based payment plans in the consolidated statements of operations for the three months ended September 30, 2008 and 2007 in accordance with SFAS No. 123R ("SFAS 123R"), *Share-Based Payment*, and did not capitalize any such costs on the consolidated balance sheets, as such costs that qualified for capitalization were not material. Under the fair value recognition provisions of SFAS 123R, stock-based compensation cost is measured at the grant date based on the value of the award and is recognized as expense over the service period. The following table presents share-based compensation expenses included in the Company's consolidated statement of operations:

	Three Months Ended September 30,	
	2008	2007
Cost of revenues	$ 69	$ 99
Selling, general and administrative	933	1,892
Research and development	422	644
Share-based compensation expense before tax	1,424	2,635
Income tax benefit	—	—
Net compensation expense	$ 1,424	$ 2,635

The following table sets forth the weighted-average key assumptions and fair value results for stock options granted during the three months ended September 30, 2008 and 2007:

	Three Months Ended September 30,	
	2008	2007
Weighted-average fair value of options granted	$ 4.44	$ 4.72
Option life	5.5 years(1)	5.0 years(1)
Risk-free interest rate	3.1%(2)	4.3%(2)
Stock volatility	57%(3)	45%(3)
Dividend rate	0%	0%

(1) The option life was determined based upon historical option activity.

(2) The risk-free interest rate for each grant is equal to the U.S. Treasury yield curve in effect at the time of grant for instruments with a similar expected life.

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(3) The stock volatility for each grant is measured using the weighted average of historical daily price changes of the Company's common stock over the most recent period equal to the expected option life of the grant, the historical short-term trend of the option and other factors, such as expected changes in volatility arising from planned changes in the Company's business operations.

The following table sets forth the weighted-average key assumptions and fair value results for employees' stock purchase rights during the three months ended September 30, 2008 and 2007:

	Three Months Ended September 30,	
	2008	2007
Weighted-average fair value of stock purchase rights granted	$ 2.94	$ 3.38
Option life	6 months	6 months
Risk-free interest rate	2.1%	4.1%
Stock volatility	93%	40%
Dividend rate	0%	0%

D. Net Earnings (Loss) Per Share

The following table sets forth the computation of basic and diluted net (loss) earnings per share (in thousands, except share and per share data):

	Three Months Ended September 30,	
	2008	2007
Net loss from continuing operations—basic	$ (1,032)	$ (3,167)
Interest and amortization of deferred financing costs, net of tax, related to convertible notes	—	—
Adjusted net loss from continuing operations—for calculation of diluted loss per share	$ (1,032)	$ (3,167)
Loss from discontinued operations	(743)	(141)
Gain on sale of discontinued operations	471	—
Net loss	$ (1,304)	$ (3,308)
Shares used in computation of net (loss) earnings per share—basic	22,009	21,474
Potential dilutive common shares:		
Shares issuable under Convertible Senior Notes	—	—
Stock options	—	—
Shares used in computation of net (loss) earnings per share—diluted	22,009	21,474
Net (loss) earnings per share—basic		
Continuing operations	$ (0.05)	$ (0.15)
Loss from discontinued operations	(0.03)	—
Gain on sale of discontinued operations	0.02	—
Net loss	$ (0.06)	$ (0.15)
Net (loss) earnings per share—diluted		
Continuing operations	$ (0.05)	$ (0.15)
Loss from discontinued operations	(0.03)	—
Gain on sale of discontinued operations	0.02	—
Net loss	$ (0.06)	$ (0.15)

Weighted average equity instruments to purchase 4,174,219 and 4,111,524 shares of common stock were not included in the calculation of diluted net loss per share for the three months ended September 30, 2008 and 2007, respectively, because the equity instruments were antidilutive. Additionally, the 4,135,000 shares which represent the securities contingently issuable under the Company's outstanding Convertible Senior Notes were not included in the diluted net loss per share for the three months ended September 30, 2008 and 2007 because the equity instruments were antidilutive.

E. Marketable Securities

The Company's investments consist mainly of treasury bills and student loan auction rate securities ("ARS"). The ARS debt securities are all highly rated investments with AAA/Aaa ratings and are supported by the federal government as part of the Federal Family Education Loan Program (FFELP) and by private insurance companies. The ARS investments have contractual terms from 30 to 40 years, but generally have interest rate reset dates that occur every seven to 30 days. The auction mechanism generally allows existing investors to roll over their holdings and continue to own their securities or liquidate their holdings by selling their securities at par value.

Beginning in mid-February 2008, auctions held for the Company's auction rate securities with a total aggregate par value of approximately $50,250 failed. As a result, the Company will not be able to access these funds until future auctions for these ARS are successful, the securities are sold in a secondary market which currently is not active, or the securities are called by the issuer. As such, the ARS investments currently lack short-term liquidity and were therefore classified as non-current in the September 30, 2008 consolidated balance sheet. Further, the Company reviewed the estimated fair value of the ARS investments as of September 30, 2008 using a discounted cash flow model and based upon this analysis the Company determined that the value of the investments was impaired. The Company determined that this impairment charge, totaling $4,261, was a temporary impairment in accordance with SFAS No. 115, *Accounting for Certain Investments in Debt and Equity Securities*, based upon several factors including market factors and the Company's ability to hold the securities to recovery or maturity. The $4,261 charge was recorded as an unrealized loss in accumulated other comprehensive income in the consolidated balance sheet. The Company will reassess this conclusion in future reporting periods based on several factors, including the success or failure of future auctions, possible failure of the investment to be redeemed, deterioration of the credit ratings of the investments, market risk and other factors. Such a reassessment may change the classification of these investments to short-term, result in a larger or smaller impairment charge or result in a conclusion that these investments are other-than-temporarily impaired. If it is determined that the fair value of these securities is other-than-temporarily impaired, the Company would record a loss in the consolidated statements of operations, which could materially adversely impact the Company's results of operations and financial condition. In October 2008, the Company received a rights offering from UBS Financial Services, Inc. ("UBS"), in which the Company has elected to participate. The offering will allow the Company to redeem our ARS at par plus accrued interest on June 30, 2010 (see Footnote U).

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The following table summarizes the marketable securities of the Company as of September 30, 2008 and June 30, 2008:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Market Value
SEPTEMBER 30, 2008				
Short-term marketable securities:				
Government and agency securities	$ 60,073	$ —	$ (46)	$60,027
Long-term marketable securities:				
Auction rate securities	$ 50,298	$ —	$ (4,261)	$46,037
JUNE 30, 2008				
Short-term marketable securities:				
Government and agency securities	$ 60,217	$ —	$ (12)	$60,205
Long-term marketable securities:				
Auction rate securities	$ 50,265	$ —	$ (3,034)	$47,231

The Company's investments in long-term marketable securities, which consist entirely of auction rate securities, had remaining maturities upwards of 40 years as of September 30, 2008 and June 30, 2008. For the period ended September 30, 2008 and year ended June 30, 2008 realized gains and losses from the sale of marketable securities were immaterial.

F. Comprehensive Loss

Total comprehensive loss was as follows:

	Three Months Ended September 30,	
	2008	2007
Net loss	$(1,304)	$ (3,308)
Other comprehensive (loss) income:		
Foreign currency translation adjustments	(1,726)	2,237
Change in unrealized (loss) gain on marketable securities	(1,263)	109
Other comprehensive (loss) income	(2,989)	2,346
Total comprehensive loss	$(4,293)	$ (962)

G. Inventory

Inventory is stated at the lower of cost (first-in, first-out) or market value, and consists of materials, labor and overhead. On a quarterly basis, the Company uses consistent methodologies to evaluate inventory for net realizable value. The Company reduces the value of inventory for excess and obsolete inventory, consisting of on-hand and non-cancelable on-order inventory in excess of estimated usage. The excess and obsolete inventory evaluation is based upon assumptions about future demand, product mix and possible alternative uses. Inventory was comprised of the following:

	September 30, 2008	June 30, 2008
Raw materials	$ 8,094	$ 8,822
Work in process	7,595	9,488
Finished goods	5,769	6,384
Total	$ 21,458	$24,694

There are no amounts in inventory relating to contracts having production cycles longer than one year.

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H. Operating Segment, Significant Customers and Geographic Information

Operating segments are defined as components of an enterprise evaluated regularly by the Company's senior management in deciding how to allocate resources and assess performance. These reportable segments were determined based upon the nature of the products offered to customers, the market characteristics of each operating segment and the Company's management structure:

- Advanced Computer Systems ("ACS")—This segment provides high-performance embedded computer systems as standard products to the defense, semiconductor, telecommunications and life sciences markets by using commercial off-the-shelf (COTS) and selected rugged components. This segment also provides simulation software (commercial and defense) and customized design services to meet the specified requirements of military and commercial applications.
- Visage Imaging ("Visage")—This segment develops and distributes visualization and picture archival and communications system (PACS) solutions and other three dimensional (3D) software solutions for the life sciences market.
- Visualization Sciences Group ("VSG")—This segment develops and distributes 3D software developer toolkits and applications for geosciences, engineering & manufacturing, material sciences, and other industrial and scientific domains.
- Emerging Businesses Unit ("EBU")—This business unit focuses on cultivation of new business opportunities that benefit from the Company's capabilities across markets. Current areas of focus include services and support work with federal intelligence agencies and homeland security programs. This business unit previously included the Biotech business, which is now being presented as discontinued operations (see Footnote N).

The accounting policies of the reportable segments are the same as those described in "Note B: Summary of Significant Accounting Policies." The profitability measure employed by the Company and its chief operating decision maker for making decisions about allocating resources to segments and assessing segment performance is income (loss) from operations prior to stock compensation expense. As such, stock compensation expense has been excluded from each operating segments' income (loss) from operations below and reported separately to reconcile the reported segment income (loss) from operations to the consolidated operating income (loss) reported in the consolidated statements of operations. Additionally, asset information by reportable segment is not reported because the Company does not produce such information internally. The following is a summary of the performance of the Company's operations by reportable segment:

	ACS	Visage	VSG	EBU	Stock Compensation Expense	Eliminations	Total
THREE MONTHS ENDED SEPTEMBER 30, 2008							
Net revenues to unaffiliated customers	$44,635	$ 1,965	$2,294	$ 205	$ —	$ —	$49,099
Intersegment revenues	—	—	—	70	—	(70)	—
Net revenues	44,635	1,965	2,294	275	—	(70)	49,099
Income (loss) from operations	3,498	(2,653)	(152)	(586)	(1,424)	(26)	(1,343)
Depreciation and amortization expense	2,508	313	183	6	—	—	3,010
THREE MONTHS ENDED SEPTEMBER 30, 2007							
Net revenues to unaffiliated customers	$42,197	$ 2,764	$2,565	$ 482	$ —	$ —	$48,008
Intersegment revenues	—	—	—	—	—	—	—
Net revenues	42,197	2,764	2,565	482	—	—	48,008
Income (loss) from operations	2,961	(2,504)	405	(1,103)	(2,635)	—	(2,876)
Depreciation and amortization expense	3,231	459	227	59	—	—	3,976

The geographic distribution of the Company's revenues from continuing operations is summarized as follows:

	US	Europe	Asia Pacific	Eliminations	Total
THREE MONTHS ENDED SEPTEMBER 30, 2008					
Net revenues to unaffiliated customers	$45,219	$3,578	$ 302	$ —	$49,099
Inter-geographic revenues	1,522	214	2	(1,738)	—
Net revenues	46,741	3,792	304	(1,738)	49,099
THREE MONTHS ENDED SEPTEMBER 30, 2007					
Net revenues to unaffiliated customers	$42,267	$4,267	$ 1,474	$ —	$48,008
Inter-geographic revenues	1,673	456	8	(2,137)	—
Net revenues	43,940	4,723	1,482	(2,137)	48,008

Foreign revenue is based on the country in which the Company's legal subsidiary is domiciled.

The geographic distribution of the Company's long-lived assets from continuing operations is summarized as follows:

	US	Europe	Asia Pacific	Eliminations	Total
SEPTEMBER 30, 2008	79,764	21,351	524	—	101,639
June 30, 2008	81,064	23,728	524	—	105,316

Identifiable long-lived assets exclude deferred tax accounts, marketable securities and investments in subsidiaries.

Customers comprising 10% or more of the Company's revenues for the periods shown below are as follows:

	Three Months Ended September 30, 2008	Three Months Ended September 30, 2007
Customer A (ACS)	*%	12%
Customer B (ACS)	23%	13%
Customer C (ACS)	13%	*%
Customer D (ACS)	11%	*%
	47%	25%

* Indicates that the amount is less than 10% of the Company's revenues for the respective period.

I. Goodwill and Acquired Intangible Assets

The changes in the carrying amount of goodwill for the three months ended September 30, 2008 and the year ended June 30, 2008 were as follows:

	ACS	Visage	VSG	EBU	Total
JUNE 30, 2007 BALANCE	$57,643	$ 28,437	$7,358	$ 561	$ 93,999
Goodwill impairment	—	(17,422)	—	(561)	(17,983)
Foreign currency translation	—	3,880	1,060	—	4,940
JUNE 30, 2008 BALANCE	$57,643	$ 14,895	$8,418	$ —	$ 80,956
Foreign currency translation	—	(1,086)	(614)	—	(1,700)
September 30, 2008 BALANCE	$57,643	$ 13,809	$7,804	$ —	$ 79,256

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The decrease in goodwill during the three months ended September 30, 2008 consisted of a decrease of $1,700 related to foreign currency translation adjustments.

The decrease in goodwill during fiscal year 2008 consisted of an impairment of goodwill of $17,983 and an increase of $4,940 related to foreign currency translation adjustments.

In April 2008, the Company was required to perform an interim impairment test of goodwill and long-lived assets as a result of a triggering event: the Company's determination that it was more likely than not that the Company would sell the ES/PS business. Based on this interim evaluation, the carrying amount of goodwill in the Visage business unit exceeded the implied fair value, resulting in a $17,422 impairment charge. Also, in April 2008, the Company determined that the Company was required to perform an interim evaluation for its AUSG reporting unit which is a component of the Emerging Business Unit. Based on this evaluation an impairment charge of $561 was recorded. The Company also performed its fiscal 2008 annual impairment test as of May 31, 2008, which resulted in the identification of no additional goodwill impairment charges.

Acquired intangible assets consisted of the following:

	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Average Useful Life
September 30, 2008				
Completed technology	$17,757	$ (16,878)	$ 879	3.3 years
Customer relationships	12,878	(8,181)	4,697	5.4 years
Licensing agreements, trademarks and patents	3,934	(3,490)	444	5.0 years
Non-compete agreements	500	(17)	483	5.0 years
	$35,069	$ (28,566)	$ 6,503	
June 30, 2008				
Completed technology	$18,061	$ (16,515)	$ 1,546	3.3 years
Customer relationships	13,356	(7,860)	5,496	5.4 years
Licensing agreements, trademarks and patents	3,862	(3,416)	446	5.0 years
	$35,279	$ (27,791)	$ 7,488	

Estimated future amortization expense for acquired intangible assets remaining at September 30, 2008 is $2,260 for fiscal 2009, $2,322 for fiscal 2010, $1,254 for fiscal 2011, $298 for fiscal 2012, and $369 for fiscal 2013 onward.

J. Commitments and Contingencies

Legal Claims

On January 31, 2006, the Company received a written notice and request for indemnification from Seismic Micro-Technology, Inc. ("SMT"), which had been named as a defendant in a patent infringement suit entitled *Landmark Graphics Corporation, et al. v. Paradigm Geophysical Corporation, et al (Landmark)*, filed in the United States District Court for the Southern District of Texas. SMT based its request for indemnification on the terms of certain application developer agreements it entered into with the Company and certain of its subsidiaries. The complaint alleged infringement by SMT of U.S. patent number 6,765,570, and sought injunctive relief, treble damages, costs and attorneys' fees. On February 22, 2006, SMT answered and filed counterclaims for declaratory judgment of non-infringement and invalidity. On February 28, 2006, the Company notified SMT that it would indemnify SMT from all costs and damages that may be awarded against SMT in the foregoing action, and would be responsible for attorneys' fees and expenses incurred by SMT in defense of the action, subject to certain conditions, including the Company's right to control and direct the defense of the action on behalf of SMT. In July 2007, an agreement in principle was reached to settle this litigation and on

September 11, 2007, the parties reached a definitive settlement and license agreement. The definitive agreement neither admits nor denies fault and includes a royalty-based license to sell products covered by U.S. patent number 6,765,570 and related patents for the life of the patents.

The Company is also subject to other legal proceedings, claims and tax audits that arise in the ordinary course of business. The Company does not believe the outcome of these matters will have a material adverse effect on its financial position, results of operations or cash flows.

INDEMNIFICATION OBLIGATIONS

The Company's standard product sales and license agreements entered into in the ordinary course of business typically contain an indemnification provision pursuant to which the Company indemnifies, holds harmless, and agrees to reimburse the indemnified party for losses suffered or incurred by the indemnified party in connection with any patent, copyright or other intellectual property infringement claim by any third party with respect to the Company's products. Such provisions generally survive termination or expiration of the agreements. The potential amount of future payments the Company could be required to make under these indemnification provisions is, in some instances, unlimited.

GUARANTEES

As part of the sale of the ES/PS businesses reported as discontinued operations in fiscal 2008, the Company made certain guarantees to the buyer in regards to potential employee severance costs incurred by the buyer if the ES/PS employees are terminated prior to December 19, 2008. This guarantee could result in a maximum payment of $860. No amounts were accrued as of September 30, 2008 related to this guarantee.

PURCHASE COMMITMENTS

As of September 30, 2008, the Company has entered into non-cancelable purchase commitments for certain inventory components and services used in its normal operations. The purchase commitments covered by these agreements are for less than one year and aggregate approximately $20,016.

K. Shareholders' Equity

STOCK REPURCHASE PROGRAM

The Company may reacquire shares in connection with the surrender of shares to cover the minimum taxes on vesting of restricted stock. During the three months ended September 30, 2008, 26,788 shares were reacquired in such transactions for a total cost of $239, while 24,802 shares were reacquired during the three months ended September 30, 2007 for a total cost of $278.

L. Product Warranty Accrual

All of the Company's product sales generally include a 12 or 18-month standard hardware warranty. At the time of product shipment, the Company accrues the estimated cost to repair or replace potentially defective products. Estimated warranty costs are based upon prior actual warranty costs for substantially similar transactions. The following table presents the changes in the Company's product warranty liability.

	2008	2007
Beginning balance at June 30,	$1,972	$2,508
Accruals for warranties issued during the period	517	709
Settlements made during the period	(706)	(779)
Ending balance at September 30,	$1,783	$2,438

M. Property and Equipment

Property and equipment consisted of the following:

	September 30, 2008	June 30, 2008
Computer equipment and software	$ 65,437	$ 65,111
Furniture and fixtures	6,963	6,965
Building and leasehold improvements	712	620
Machinery and equipment	2,314	1,835
	75,426	74,531
Less: accumulated depreciation and amortization	(64,960)	(63,477)
	$ 10,466	$ 11,054

Depreciation and amortization expense related to property and equipment for the three months ended September 30, 2008 and 2007 was $1,635 and $2,170, respectively.

On April 20, 2007, the Company entered into a sales agreement and a lease agreement in connection with a sale-leaseback of the Company's headquarters in Chelmsford, Massachusetts. Pursuant to the agreements, the Company sold all land, land improvements, buildings and building improvements related to the facilities and leased back those assets, with the exception of the vacant parcel of land adjacent to the headquarters. The term of the lease is ten years and includes two five year options to renew. The Company's net proceeds from the sale, after transaction and other related costs, were $26,365 resulting in a gain of $11,569. Under the provisions of sale-leaseback accounting, the transaction was considered a normal leaseback; thus the realized gain was deferred and will be amortized to other income on a straight-line basis over the initial lease term. The Company recorded the current portion of the deferred gain in accrued expenses and the non-current portion in long-term deferred gain in the accompanying consolidated balance sheet.

N. Discontinued Operations

In May 2008, the Company completed the sale of the Embedded Systems and Professional Services ("ES/PS") business for $367 plus future royalties, net of tax. The ES/PS businesses were previously reported in the results of the Visage Imaging operating segment. The sale resulted in a loss of $1,005 on disposal of the discontinued operation. The loss incurred as a result of the ES/PS business sale was primarily reflective of the Company's perceived declining value of the underlying business and the potential employee severance obligation assumed by the buyer if the business does not perform. To compensate for the potential severance obligation, the Company has provided a guarantee to the buyer which would cover a portion of the severance costs if the buyer must sever any ES/PS employees before December 19, 2008. This guarantee could result in a maximum payment of $860. No amounts were accrued as of September 30, 2008 related to this guarantee.

The Company may benefit from future royalty payments through December 2009, although, the Company does not expect such payments to be material. These receipts will be recorded as gain on sale of discontinued operations, after deducting taxes, when reported to the Company or when the cash is received, whichever is earlier.

In September 2008, the Company completed an asset sale of the Biotech Group ("Biotech") business for a $130 future cash payment due in the second quarter of fiscal 2009 and $300 worth of preferred shares in the acquiring entity to be received. The Biotech business was previously reported in the results of the Emerging Business Unit operating segment. The sale resulted in a gain of $328 on disposal of the discontinued operation.

In accordance with SFAS 144, ES/PS and Biotech have been reflected as discontinued operations for all periods presented in the Company's consolidated financial statements, except the consolidated statements of cash flows. Accordingly, the revenue, costs, expenses, assets and liabilities of ES/PS and Biotech have been reported separately in the Consolidated Statements of Operations and consolidated balance sheets for all periods presented. The results of discontinued operations do not reflect any interest expense or any allocation of corporate general and administrative expense.

The amounts reported as assets and liabilities of the discontinued operations were as follows:

	September 30, 2008	June 30, 2008
Prepaid expenses and other currents assets	$ —	$ 38
Property and equipment, net	—	129
Acquired intangible assets, net	—	13
Other non-current assets	—	18
Assets of discontinued operations	$ —	$ 198
Accounts payable	$ —	$ 59
Accrued expenses, compensation and warranty	206	65
Liabilities of discontinued operations	$ 206	$ 124

O. Debt

Debt consisted of the following:

	September 30, 2008	June 30, 2008
Convertible senior notes payable	$ 125,000	$ 125,000
Other notes payable and capital lease obligations	384	319
Less: current portion	(125,370)	(125,301)
Total non-current notes payable and capital lease obligations	$ 14	$ 18

Convertible Senior Notes Payable

On April 29, 2004, the Company completed a private offering of $125,000 aggregate principal amount of Convertible Senior Notes (the “Notes”), which mature on May 1, 2024 and bear interest at 2% per year, payable semiannually in arrears in May and November. The Notes are unsecured, rank equally in right of payment to the Company’s existing and future unsecured senior debt, and do not subject the Company to any financial covenants.

Under certain circumstances, the Notes will be convertible into common stock at a conversion rate of 33.0797 shares per $1,000 principal amount of the Notes, subject to adjustment in certain circumstances. The conversion rate is equal to an initial conversion price of approximately $30.23 per share. At the option of the holder, the Notes may be converted if, on or prior to May 1, 2019, the closing price of the Company’s common stock exceeds $36.28 for at least 20 trading days in a specified 30-day period of each fiscal quarter or on any date after May 1, 2019, the closing price of Mercury’s common stock exceeds $36.28. The Notes may also be converted at the option of the holder if prior to May 1, 2019, the average trading price for the convertible senior notes is less than 98% of the average conversion value for the convertible senior notes during any five consecutive trading-day period. The holders may require the Company to repurchase the notes, in whole or in part, (a) on May 1, 2009, 2014 or 2019, (b) upon a change in control, or (c) if the Company’s common stock is neither listed nor approved for trading on specified markets. At the Company’s option, the Notes may be redeemed on or after May 1, 2009 at a price equal to 100% of the principal amount of the Notes to be redeemed plus accrued and unpaid interest. As of September 30, 2008, no circumstances existed and no events had occurred that made the Notes convertible.

Upon issuance of the Notes, the Company received net proceeds of $120,889 after offering expenses of $4,111, which were recorded as deferred financing costs in other long-term assets on the balance sheet and are being amortized over the five-year term to May 1, 2009, the first optional redemption date of the debt. For the three months ended September 30, 2008 and 2007, respectively, additional interest expense from the amortization of these deferred financing costs totaled $212 and $211. The unamortized balance of deferred financing costs totaled approximately $493 and $705 as of September 30, 2008 and June 30, 2008, respectively.

Other Notes Payable

As of September 30, 2008 the Company had other debt consisting of $130 in notes payable for foreign subsidiaries and $254 of capital lease obligations primarily related to office equipment leases.

In fiscal 2008, the Company secured a margin loan facility from a financial institution of $23,700 collateralized by the $50,250 of auction rate securities. As of September 30, 2008, the Company has not utilized this margin loan facility.

P. Income Tax (Benefit) Provision

The tax effect of temporary differences, primarily asset reserves and accrued liabilities, gave rise to the Company’s deferred tax assets in the accompanying consolidated balance sheets; however, as management has determined that it is more likely than not that the domestic deferred tax assets would not be realized due to uncertainties surrounding the timing and amounts of future taxable income, a valuation allowance has been recorded. The valuation allowances recorded during the three months ended September 30, 2008 and 2007 were $2,489 and $4,732, respectively.

The Company did not record a tax benefit or expense during the three months ended September 30, 2008 on a loss before income taxes of $1,032 as compared to a tax expense of $1,840 on a loss before income taxes of $1,327 for the three months ended September 30, 2007. The income tax provision for the respective three month period differed from the federal statutory rate primarily as a result of permanent differences, including equity compensation and tax credits, and the impact of the valuation allowances.

There were no material changes in the Company’s unrecognized tax positions during the three months ended September 30, 2008. The Company expects that there will not be any material changes in its reserves for unrecognized tax benefits within the next 12 months.

Q. Restructuring Provision

In fiscal 2008, the Company announced three restructuring plans, one within the ACS business unit (“ACS Plan”), one within the Visage Imaging business unit (“Visage Plan”) and one within the Emerging Businesses Unit (“AUSG Plan”).

The ACS Plan for which expense of $2,258 was recorded in fiscal 2008, was enacted to reduce payroll and overhead costs to realign costs with the Company’s revenue base; particularly in regards to our commercial portfolio. In fiscal 2009, this plan was amended to include an increase in severance expense of $188. This plan included severance costs associated with the elimination of certain executive level positions and to shut down one of the Company’s California sites.

The Visage Plan for which expense of $682 was recorded in fiscal 2008, was enacted to consolidate multiple locations in Germany and reduce payroll costs based on the slower than expected market traction for the Visage products. In fiscal 2009, this plan was amended to include an increase in expense, primarily severance, of $301. Under this plan, the Company incurred a restructuring charge primarily related to severance costs associated with the elimination of 20 positions and the closure of the Fuerth, Germany facility.

The AUSG Plan for which expense of $1,781 was recorded in fiscal 2008, was enacted in March 2008 to reduce the financial impact of the AUSG reporting unit, which is a component of the Emerging Businesses Unit. The AUSG reporting unit was established through a combination of organic growth and the acquisition of NAV3D and consisted of three product lines: general avionics (e.g. Vistanav products), unmanned aviation systems and synthetic vision. Due to the continued operating losses and negative cash impact of the AUSG reporting unit, the Company established this plan to eliminate 12 positions in March 2008 and two positions in April 2008, which effectively curtails the operating losses (see Note R to the consolidated financial statements). As part of this restructuring event, the Company also reviewed its long-lived assets for impairment as required by SFAS 144, noting no impairment; however, based on the shortened life of these assets, the Company revised the asset's useful lives resulting in an accelerated depreciation and amortization charge of $700 which was included in this restructuring charge. In fiscal 2009, this plan was amended to include an immaterial increase to severance expense.

In response to lower than expected demand in certain sectors of the Company's business, as well as the need to maintain a competitive cost structure and integrate the Company's previous acquisitions, the Company incurred a series of restructuring charges totaling $5,782 in fiscal 2007 ("2007 Plan"). The 2007 Plan primarily consisted of involuntary separation costs related to the reduction in force which eliminated approximately 110 positions. A gross incremental provision of $939 was recorded during fiscal 2008 due primarily to the elimination of five additional positions and the accrual of various retention bonuses. In fiscal 2009, an immaterial incremental provision was recorded.

All of the restructuring charges are classified as operating expenses in the consolidated statements of operations and are expected to be paid within the next twelve months. The remaining restructuring liability is classified as accrued expenses in the consolidated balance sheets.

The following table presents the detail of expenses by operating segment for the Company's restructuring plans:

	Severance	Facilities	Other	Total
Restructuring liability at June 30, 2007	$ 3,286	$ —	$ —	$ 3,286
ACS	2,794	217	48	3,059
VSG	55	—	—	55
Visage	501	132	132	765
EBU	1,021	43	717	1,781
Total provision	4,371	392	897	5,660
Cash paid	(4,528)	(52)	(897)	(5,477)
Reversals and currency exchange impact	(566)	10	—	(556)
Restructuring liability at June 30, 2008	$ 2,563	$ 350	$ —	$ 2,913
ACS	188	21	—	209
VSG	15	—	—	15
Visage	254	—	47	301
EBU	—	—	—	—
Total provision	457	21	47	525
Cash paid	(1,912)	(115)	(47)	(2,074)
Reversals and currency exchange impact	(17)	(20)	—	(37)
Restructuring liability at September 30, 2008	$ 1,091	$ 236	$ —	$ 1,327

R. Exclusive License

In April 2008, the Company exclusively licensed certain intellectual property ("IP") associated with its Avionics and Unmanned Systems Group ("AUSG") reporting unit (a component of the Emerging Businesses Unit) and sold certain capital equipment, patents and trademarks to a third-party for $3,200 in cash, payable in

May 2008. In connection with this IP license agreement, the Company separately licensed to the buyer additional related software, agreed to provide maintenance on this related software for 12 months, agreed to cover the first $100 of warranty expense and provided the buyer a right to purchase the related AUSG inventory and capital equipment for an additional, mutually determinable, fee. Through September 30 2008, the buyer elected to purchase $470 of AUSG inventory as allowed under the original agreement. The Company expects to have a continuing involvement in this business due, in part, to the support services offered on the software sold and an expectation of future fees earned on development and runtime software licenses.

S. Fair Value of Financial Instruments

Effective July 1, 2008, the Company adopted SFAS No. 157 for our financial assets and liabilities that are re-measured and reported at fair value at each reporting period, and non-financial assets and liabilities that are re-measured and reported at fair value at least annually. As permitted by FASB Staff Position ("FSP") No. SFAS 157-2, *Effective Date of FASB Statement No.* 157, we have elected to defer implementation of SFAS 157 as it relates to our non-financial assets and non-financial liabilities that are recognized and disclosed at fair value in the financial statements on a nonrecurring basis until July 1, 2009. We are evaluating the impact, if any, this Standard will have on our non-financial assets and liabilities.

The Company measures at fair value certain financial assets and liabilities, including cash equivalents, government and agency securities, auction rate securities, and deferred compensation. SFAS No. 157 specifies a hierarchy of valuation techniques based on whether the inputs to those valuation techniques are observable or unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect the Company's market assumptions. These two types of inputs have created the following fair-value hierarchy:

Level 1—Quoted prices for identical instruments in active markets

Level 2—Quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets; and

Level 3—Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are unobservable.

The following table summarizes the fair value measurements as of September 30, 2008, for the Company's financial instruments, including its ARS (in thousands):

	Fair Value Measurements as of September 30, 2008			
	September 30, 2008	Level 1	Level 2	Level 3
Assets:				
Cash equivalents and restricted cash:				
Money market	$ 28,145	$ 28,145	$ —	$ —
Treasury	28,621	28,621	—	—
Government and agency securities	60,027	60,027	—	—
Auction rate securities	46,037	—	—	46,037
Plan assets for deferred compensation	1,149	1,149	—	—
Total	$ 163,979	$ 117,942	$ —	$ 46,037

The fair values of our cash equivalents and restricted cash, government and agency securities, and plan assets are determined through market, observable and corroborated sources.

The following table is a roll forward of the fair value of our auction rate securities, whose fair value is determined by Level 3 inputs (in thousands):

	Fair Value
Balance at June 30, 2008	$ 47,231
Earned income	33
Total unrealized losses included in comprehensive income	(1,227)
Balance at September 30, 2008	$ 46,037

The carrying value of the auction rate securities reflect changes in the fair value of the underlying securities, which is based on Level 3 unobservable inputs consisting of recommended fair values provided by our broker combined with internal analysis of interest rate spreads and credit quality. All realized gains or losses are included in other income (expense), net. All unrealized gains or losses are included in other comprehensive (loss) income.

T. Related Party Transactions

During the three months ended September 30, 2008, the Company and the former CEO, James Bertelli, entered into an agreement for consulting services through June 30, 2010. The consideration for these services totaled $190 and will be paid out over the service period. Additionally, the Company entered into a 5 year non-compete agreement with our former CEO. This asset was valued at $500 and will be amortized over the life of the agreement. For the three months ended September 30, 2007, the Company did not engage in any significant related party transactions.

U. Subsequent Events

In October 2008, the Company received a rights offering from UBS (the “offering”), in which the Company has elected to participate. The offering will allow the Company to redeem our ARS at par plus accrued interest on June 30, 2010. The offering also contains an option to borrow up to 75% of the fair value of the ARS at no cost. Upon borrowing against the ARS, the Company would forgo the interest income on the underlying ARS, while the borrowings are outstanding. The Company expects to redeem our ARS on June 30, 2010. The loan facility included in the offering will replace our previous margin loan facility with UBS.

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

FORWARD-LOOKING STATEMENTS

From time to time, information provided, statements made by our employees or information included in our filings with the Securities and Exchange Commission may contain statements that are not historical facts but that are "forward-looking statements," which involve risks and uncertainties. The words "may," "will," "should," "plan," "expect," "anticipate," "continue," "estimate," "project," "intend," and similar expressions are intended to identify forward-looking statements regarding events, conditions and financials trends that may affect our future plans of operations, business strategy, results of operations and financial position. These forward-looking statements, which include those related to our strategic plans, business outlook, and future business and financial performance, involve risks and uncertainties that could cause actual results to differ materially from those projected or anticipated. Such risks and uncertainties include, but are not limited to, general economic and business conditions, including unforeseen economic weakness in our markets, effects of continued geo-political unrest and regional conflicts, competition, changes in technology and methods of marketing, delays in completing various engineering and manufacturing programs, changes in customer order patterns, changes in product mix, continued success in technological advances and delivering technological innovations, continued funding of defense programs and the timing of such funding, changes in the U.S. Government's interpretation of federal procurement rules and regulations, market acceptance of our products, shortages in components, production delays due to performance quality issues with outsourced components, inability to fully realize the expected benefits from acquisitions or delays in realizing such benefits, challenges in integrating acquired businesses and achieving anticipated synergies, inability to identify opportunities to rationalize our business portfolio in a timely manner or at all, difficulties in retaining key employees and customers, and various other factors beyond our control. These risks and uncertainties also include such additional risk factors as set forth under Part I-Item 1A (Risk Factors) in the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2008. We caution readers not to place undue reliance upon any such forward-looking statements, which speak only as of the date made. We undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made.

OVERVIEW

We design, manufacture and market high-performance embedded, real-time digital signal and image processing systems and software for embedded and other specialized computing markets. Our solutions play a critical role in a wide range of applications, transforming sensor data to information for analysis and interpretation. In military reconnaissance and surveillance platforms our systems process real-time radar, sonar, and signals intelligence data. Our systems are also used in state-of-the-art medical diagnostic imaging devices including MRI, PET, and digital X-ray, and in semiconductor imaging applications including photomask generation and wafer inspection. We provide advanced three-dimensional (3D) image processing and visualization software and optimized systems to diverse end markets including life sciences, geosciences, and simulation. We also provide radio frequency (RF) products for enhanced communications capabilities in military and commercial applications. Additionally, we entered the Defense prime contracting market space in fiscal 2008 through the creation of a federal business group to focus on reaching the intelligence agencies and homeland security programs. Further, in the three month period ending September 30, 2008 and fiscal 2008, the consolidated financial statements, excluding the statement of cash flows, were restated to reflect the discontinuation and sale of the Biotech business ("Biotech") and the Embedded Systems and Professional Services ("ES/PS") businesses, respectively, in accordance with Statement of Financial Accounting Standard No. 144, *Accounting for the Impairment or Disposal of Long-Lived Asset* (see Note N to the consolidated financial statements).

Since we are an OEM supplier to our commercial markets and conduct business with our defense customers via commercial off-the-shelf (COTS) distribution, requests by customers are a primary driver of revenue fluctuations from quarter to quarter. Customers specify delivery date requirements that coincide with their need for our product. Because these customers may use our products in connection with a variety of defense programs or other projects with different sizes and durations, a customer's orders for one quarter generally do not indicate a trend for future orders by that customer. Additionally, order patterns of one customer do not necessarily correlate with the order patterns of another customer and, therefore, we generally cannot identify sequential quarterly trends, even within our business units.

RESULTS OF OPERATIONS:

The following tables set forth, for the periods indicated, certain financial data as a percentage of total revenues:

	Three Months Ended September 30, 2008	Three Months Ended September 30, 2007
Net revenues	100.0%	100.0%
Cost of revenues	42.4	35.0
Gross margin	57.6	65.0
Operating expenses:		
Selling, general and administrative	32.2	39.8
Research and development	24.2	27.4
Amortization of acquired intangible assets	2.8	3.7
Restructuring	1.1	0.1
Total operating expenses	60.3	71.0
Loss from operations	(2.7)	(6.0)
Other income, net	0.6	3.2
Loss from continuing operations before income taxes	(2.1)	(2.8)
Provision for income taxes	0.0	3.8
Net loss from continuing operations	(2.1)	(6.6)
Loss from discontinued operations, net of taxes	(1.5)	(0.3)
Gain on sale of discontinued operations, net of taxes	0.9	0.0
Net loss	(2.7)%	(6.9)%

REVENUES

(in thousands)	September 30, 2008	As a % of Total Net Revenue	September 30, 2007	As a % of Total Net Revenue	$ Change	% Change
ACS	$ 44,635	91%	$ 42,197	88%	$ 2,438	6%
Visage	1,965	4%	2,764	6%	(799)	(29)%
VSG	2,294	4%	2,565	5%	(271)	(11)%
EBU	205	1%	482	1%	(277)	(57)%
Total revenues	$ 49,099	100%	$ 48,008	100%	$ 1,091	2%

Total revenues increased $1.1 million or 2% to $49.1 million during the three months ended September 30, 2008 as compared to the comparable period in fiscal 2008. International revenues represented approximately 8% and 13% of total revenues during the three months ended September 30, 2008 and 2007, respectively.

ACS revenues increased $2.4 million or 6% during the three months ended September 30, 2008 as compared to the same period in fiscal 2008. The increase in revenue quarter over quarter was driven primarily by a $6.1 million increase in sales relating to defense applications. This increase was partially offset by decreases of

$3.7 million for commercial customers driven by reductions in revenue for legacy medical and telecommunications customers of $2.0 million and $1.7 million, respectively.

Visage revenues decreased $0.8 million or 29% during the three months ended September 30, 2008 as compared to the same period in fiscal 2008. The decrease in Visage revenues was a result of the continued decline in our legacy product line, Magicweb, which experienced quarter over quarter decreases of $1.0 million or 77%. We expect our legacy business will continue to decrease over the near term as we focus our investment in our new Visage CS Product lines and direct sales.

VSG revenues decreased $0.3 million or 11% during the three months ended September 30, 2008 as compared to the same period in fiscal 2008. The VSG revenues remained relatively flat quarter over quarter with a slight decline due to the timing of customer orders.

EBU revenues decreased $0.3 million or 57% during the three months ended September 30, 2008 as compared to the same period in fiscal 2008. The decrease in EBU revenues was primarily a result of the shutdown of our AUSG business through the exclusive license of AUSG's IP in the fourth quarter of fiscal 2008. This decrease was partially offset by the first time revenues generated from external customers for the Mercury Federal Systems ("MFS") business.

Gross Profit

Gross profit was 57.6% for the three months ended September 30, 2008, a decrease of 740 basis points from the 65.0% gross profit achieved during the same period in fiscal 2008. The decrease in gross profit was primarily due to an unfavorable customer mix, product mix, higher excess and obsolete inventory reserve provisions driven by changing customer demands, and a decrease in sales in our high margin business, VSG.

Selling, General and Administrative

Selling, general and administrative expenses decreased $3.3 million or 17% to $15.8 million during the three months ended September 30, 2008 compared to $19.1 million during the comparable period in fiscal 2008. The decrease was primarily due to a $2.1 million decrease in employee compensation expense driven by our cost cutting measures, through restructuring, taken late in fiscal year 2008 and in the first quarter of fiscal year 2009, including the shutdown of our AUSG business unit, and a $0.4 million decrease in depreciation expense driven by these assets becoming fully depreciated in the current period.

Research and Development

Research and development expenses decreased $1.2 million or 9% to $11.9 million during the three months ended September 30, 2008 compared to $13.1 million during the comparable period in fiscal 2008. The decrease was primarily the result of a decrease in salary expenses and outside consulting expenses driven by our cost saving measures. Additionally, the shutdown of our AUSG business late in fiscal year 2008 attributed to $0.5 million of this decrease. Research and development continues to be a focus of our business with approximately 24.2% and 27.4% of our revenues dedicated to research and development activities during the three months ended September 30, 2008 and 2007, respectively. Improving the effectiveness of our research and development investments so as to realize a more near-term return is a priority.

Amortization of Acquired Intangible Assets

Amortization of acquired intangible assets decreased $0.4 million or 22% to $1.4 million for the three months ended September 30, 2008 as compared to $1.8 million during the comparable period in fiscal 2008. The decrease in amortization expense was primarily due to assets becoming fully amortized during the three months ended September 30, 2008.

Restructuring Expense

Restructuring expense increased $0.5 million to $0.6 million during the three months ended September 30, 2008 compared to $0.1 million during the comparable period in fiscal 2008. This increase was primarily due to the size of each of the restructuring activities incurred in the respective periods. During the three months ended September 30, 2008, as part of the Company's cost cutting initiatives, we terminated additional employees in our Fuerth Germany location (see Footnote Q).

Interest Income

Interest income for the three months ended September 30, 2008 decreased by $1.1 million to $1.0 million compared to the same period in fiscal 2008. The decrease in interest income was primarily related to decreased rates of return on our marketable securities quarter over quarter .

Interest Expense

Interest expense for the three months ended September 30, 2008 remained relatively flat at $0.8 million compared to the same period in fiscal 2008.

Income Tax Provision

We recorded a provision for income taxes of nil during the three months ended September 30, 2008 as compared to $1.8 million during the same period in fiscal 2008. Our effective tax rate for the three months ended September 30, 2008 differed from the U.S. statutory tax rate of 35% primarily due to the valuation allowance recorded and the impact of certain non-tax deductible items such as amortization expense that cause us to be in an income tax neutral, rather than benefit, position despite incurring a pre-tax loss during the quarter.

Segment Operating Results

	Three Months Ended September 30,	
(in thousands)	**2008**	**2007**
ACS income from operations	$ 3,498	$ 2,961
Visage loss from operations	(2,653)	(2,504)
VSG (loss) income from operations	(152)	405
EBU loss from operations	(612)	(1,103)

Results from operations of the ACS segment increased $0.5 million during the three months ended September 30, 2008 to operating income of $3.5 million as compared to an operating income of $3.0 million for the same period in fiscal 2008. The increase in operating results was primarily driven by a reduction in operating expenses of $1.7 million related to the effect of reduced salaries from restructuring. The decrease in operating expenses were partially offset by decreases in gross margin of $1.2 million related to a change in product mix and an increase in obsolescence reserves due to shifts in customer demands.

Results from operations of the Visage segment decreased $0.2 million during the three months ended September 30, 2008 to an operating loss of $2.7 million as compared to an operating loss of $2.5 million for the same period in fiscal 2008. The slight decrease in operating results of the Visage segment was primarily related to decreased revenue which was offset by lower operating expenses due to restructuring activities and the closure of our Fuerth Germany facility (see Note Q to the Consolidated Financial Statements).

Results from operations of the VSG segment decreased $0.6 million during the three months ended September 30, 2008 to an operating loss of $0.2 million as compared to an operating income of $0.4 million for the same period in fiscal 2008. The decrease in operating results of the VSG segment was primarily related to a decline in revenue and an increase in R&D expenses.

Results from operations of the EBU segment increased $0.5 million during the three months ended September 30, 2008 to an operating loss of $0.6 million as compared to an operating loss of $1.1 million for the same period in fiscal 2008. The increase in results from operations was primarily due to the shutdown of our AUSG business in the third quarter of fiscal 2008. $1.1 million of expenses were recorded during the three months ended September 30, 2007 for the AUSG business, compared to $0.1 million for the three months ended September 30, 2008, offset by a decrease in operating results from our MFS business.

See Note H to our consolidated financial statements included in this report for more information regarding our operating segments.

OFF-BALANCE SHEET ARRANGEMENTS

Other than lease commitments incurred in the normal course of business, certain guarantees made related to the sale of our ES/PS business during the fourth quarter of fiscal 2008 (see Note N to the Consolidated Financial Statements) and certain indemnification provisions (see Note J to the Consolidated Financial Statements), we do not have any off-balance sheet financing arrangements or liabilities, guarantee contracts, retained or contingent interests in transferred assets, or any obligation arising out of a material variable interest in an unconsolidated entity. We do not have any majority-owned subsidiaries that are not consolidated in the financial statements. Additionally, we do not have an interest in, or relationships with, any special purpose entities.

LIQUIDITY AND CAPITAL RESOURCES

As of and for the period ended	September 30, 2008	September 30, 2007
Net cash provided by operating activities	$ 2,636	$ 3,962
Net cash used in investing activities	(1,002)	(4,530)
Net cash provided by financing activities	243	360
Net increase (decrease) in cash and cash equivalents	1,881	(48)
Cash and cash equivalents at end of period	60,926	51,245

Cash and Cash Equivalents

Our cash and cash equivalents increased by $9.7 million from September 30, 2007 to September 30, 2008, primarily as the result improved linearity in sales which resulted in improved collections on receivables.

During the three months ended September 30, 2008, we generated $2.6 million in cash from operations compared to $4.0 million generated from operations during the same period in fiscal 2008. The $1.4 million decrease in the amount of cash generated from operations was largely driven by reduced deferred revenues and customer advances, lower accounts payable and accrued expense balances, offset by improved account receivable collections and lower inventory balances. Our ability to generate cash from operations in future periods will depend in large part on profitability, the rate of collection of accounts receivable, our inventory turns and our ability to manage other areas of working capital.

During the three months ended September 30, 2008, we used $1.0 million in cash from investing activities compared to $4.5 million used in investing activities during the same period in fiscal 2008. The decrease in cash used in investing activities was primarily driven by lower net purchases of marketable securities and a decrease in cash used in acquisitions. The collapse of the auction rate securities (“ARS”) markets has resulted in $50.3 million of our auction rate securities becoming illiquid. As a result, we will not be able to access these funds until future auctions for these ARS are successful, the securities are sold in a secondary market which currently is not active, or the securities are called by the issuer. As such, the ARS investments currently lack short-term liquidity and were therefore classified as non-current in the September 30, 2008 and June 30, 2008 consolidated balance sheets. In October 2008, we received a rights offering from UBS, in which we have elected to participate. The offering will allow us to redeem our ARS at par plus accrued interest on June 30, 2010. The offering also contains an option to borrow up to 75% of the fair value of the ARS at no cost. Upon borrowing against the ARS, we would forgo the interest income on the underlying ARS, while the borrowings are outstanding. We expect to redeem our ARS on June 30, 2010. The loan facility included in the offering will replace our previous margin loan facility with UBS.

During the three months ended September 30, 2008, we generated $0.2 million in cash from financing activities compared to $0.4 million generated from financing activities during the same period in fiscal 2008. There were no material changes in financing activities.

During the three months ended September 30, 2008, our prime source of liquidity came from existing cash and marketable securities and the cash generated from operations. Our near-term fixed commitments for cash expenditures consist primarily of payments under operating leases, an alliance purchase agreement, a supply agreement and inventory purchase commitments, as well as interest payments on our long-term debt. We do not currently have any material commitments for capital expenditures. On May 1, 2009 our convertible debt may be put to us which, if such put is made in full, would result in a required cash payment of $125.0 million. If cash generated from operations is insufficient to satisfy working capital requirements and/or to make any required payments of our convertible debt, we may need to access funds through our loan facility with the holder of our ARS. Between now and June 30, 2010, we can borrow on up to 75% of this facility. There can be no assurance that we will be able to raise any such capital on terms acceptable to us, on a timely basis or at all. If we are unable to secure additional financing, we may not be able to develop or enhance our products, take advantage of future opportunities, respond to competition or continue to effectively operate our business. In addition, failure to repurchase our convertible debt when tendered in accordance with its terms would constitute an event of default under the related indenture.

Based on our current plans and business conditions, we believe that existing cash, cash equivalents and marketable securities will be sufficient to satisfy our anticipated cash requirements for at least the next twelve months.

Debt

On April 29, 2004, we completed a private offering of $125,000 aggregate principal amount of Convertible Senior Notes (the “Notes”), which mature on May 1, 2024 and bear interest at 2% per year, payable semiannually in arrears in May and November. The Notes are unsecured, rank equally in right of payment to the Company’s existing and future unsecured senior debt, and do not subject the Company to any financial covenants.

The terms of our convertible senior notes contain certain contingent conversion provisions. Under certain circumstances, the notes will be convertible into our common stock at a conversion rate of 33.0797 shares per $1,000 principal amount of the notes, subject to adjustment in certain circumstances. The conversion rate is equal to an initial conversion price of approximately $30.23 per share. At the option of the holder, the convertible notes may be converted on the final maturity date if, on or prior to May 1, 2019, the closing price of our common stock exceeds $36.28 for at least 20 trading days in a specified 30-day period of each fiscal quarter or on any date after May 1, 2019, the closing price of our common stock exceeds $36.28. The notes may also be converted at the option of the holder if prior to May 1, 2019, the average trading price for the convertible senior notes is less than 98% of the average conversion value for the convertible senior notes during any five consecutive trading-day period. The convertible notes mature on May 1, 2024 and bear interest at 2% per year, payable semiannually in arrears in May and November. The convertible notes are unsecured, rank equally in right of payment to our existing and future senior debt, and do not subject us to any financial covenants. The holders may require us to repurchase the notes, in whole or in part, (a) on May 1, 2009, 2014 or 2019, (b) upon a change in control, or (c) if our common stock is neither listed nor approved for trading on specified markets. At our option, we may redeem any of the convertible notes on or after May 1, 2009 at a price equal to 100% of the principal amount of the convertible notes to be redeemed plus accrued and unpaid interest.

Commitments and Contractual Obligations

The following is a schedule of our commitments and contractual obligations outstanding at September 30, 2008:

(in thousands)	Total	Less Than 1 Year	2-3 Years	4-5 Years	More Than 5 Years
Notes payable and capital lease obligations	$125,385	$125,370	$ 15	$ —	$ —
Interest due on notes payable	2,503	2,502	1	—	—
Purchase obligations	20,016	20,016	—	—	—
Supply agreement	1,960	—	—	1,960	—
Operating leases	23,237	3,786	6,283	5,071	8,097
IP Agreement	100	100	—	—	—
	$173,201	$151,774	$6,299	$7,031	$ 8,097

Notes payable, capital lease obligations and interest due on notes payable consists of various domestic and foreign debt agreements and the interest due on such agreements. (See Note O to the consolidated financial statements for further financial information regarding these agreements). Our pension obligation and deferred compensation plan liabilities which are not included in the table above, are included in accrued expenses in our consolidated balance sheets.

Purchase obligations represent open non-cancelable purchase commitments for certain inventory components and services used in normal operations. The purchase commitments covered by these agreements are generally for less than one year and aggregated approximately $20.0 million at September 30, 2008.

In September 2006, we entered into a supply agreement with a third party vendor to purchase certain inventory parts that went "end of life." This supply agreement, as subsequently amended, commits the vendor to acquiring and storing approximately $6.5 million of inventory until August 31, 2012 and allows the Company to place orders for the inventory four times a year. Upon the earlier of January 31, 2007 or completion of the wafer fabrication process, the Company was required to and paid approximately $1.9 million of the $6.5 million. Further, upon expiration of the agreement on August 31, 2012, if the Company does not purchase the full $6.5 million in inventory, the Company may be required to pay a penalty equal to 35% of the remaining inventory balance. As of September 30, 2008, the remaining minimum commitment related to this agreement was $2.0 million, which is the 35% "penalty" on the remaining inventory balance.

In September 2008, we entered into a new agreement ("License Agreement") with a third party to obtain an exclusive license to certain intellectual property ("IP"). This replaced a prior agreement that was terminated in August 2008. This License Agreement requires cumulative payments of $0.3 million over the next three years, beginning October 1, 2008, for an exclusive license and maintenance. Running royalty payments ("Running Royalties") will be paid based on sales of products containing the IP. Beginning with the sooner of the agreement year beginning October 1, 2010 or the agreement year following a Production Win, as defined in the agreement, and for the following two agreement years, if the Running Royalty payments do not equal or exceed $1.0 million (the "Minimum Royalty") per agreement year, we must pay the shortfall between the two amounts unless the License Agreement is terminated prior to the start of the respective agreement year. We are also obligated to reimburse the third party for all patent-related costs incurred by the third party. We can terminate the License Agreement at any time and no un-accrued obligations would be owed under the agreement.

Our standard product sales and license agreements entered into in the ordinary course of business typically contain an indemnification provision pursuant to which we indemnify, holds harmless, and agree to reimburse the indemnified party for losses suffered or incurred by the indemnified party in connection with certain intellectual property infringement claims by any third party with respect to our products. Such provisions generally survive termination or expiration of the agreements. The potential amount of future payments we could be required to make under these indemnification provisions is, in some instances, unlimited.

RELATED PARTY TRANSACTIONS

During the three months ended September 30, 2008, the Company and the former CEO, James Bertelli, entered into an agreement for consulting services through June 30, 2010. The consideration for these services totaled $190 and will be paid out over the service period. Additionally, we entered into a 5 year non-compete agreement with our former CEO. We valued this asset at $500 and we will amortize it over the life of the agreement. For the three months ended September 30, 2007, we did not engage in any significant related party transactions.

RECENT ACCOUNTING PRONOUNCEMENTS

Effective July 1, 2008, we adopted Statement of Financial Accounting Standard No. 157, *Fair Value Measurements* ("SFAS 157"), for our financial assets and liabilities that are re-measured and reported at fair value at each reporting period, and non-financial assets and liabilities that are re-measured and reported at fair value at least annually. As permitted by FASB Staff Position ("FSP") No. SFAS 157-2, *Effective Date of FASB Statement No.* 157, we have elected to defer implementation of SFAS 157 as it relates to our non-financial assets and non-financial liabilities that are recognized and disclosed at fair value in the financial statements on a nonrecurring basis until July 1, 2009. We are evaluating the impact, if any, this Standard will have on our non-financial assets and liabilities. See Footnote S for a discussion of our adoption of SFAS No. 157.

Effective July 1, 2008, we adopted the provisions of SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities—Including an Amendment of FASB Statement No. 115* ("SFAS No. 159"). SFAS No. 159 permits entities to choose to measure eligible items at fair value at specified election dates (the 'fair value option") and report unrealized gains and losses on items for which the fair value option has been elected in earnings at each subsequent reporting date. We have not elected the fair value option for any items on our balance sheet.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

There were no material changes in our exposure to market risk from June 30, 2008 to September 30, 2008.

ITEM 4. CONTROLS AND PROCEDURES

(a) Evaluation of Disclosure Controls and Procedures

The Company conducted an evaluation under the supervision and with the participation of the Company's management, including the Company's Chief Executive Officer and Chief Financial Officer (its principal executive officer and principal financial officer, respectively), regarding the effectiveness of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this report. Based on this evaluation, management has concluded that the Company's disclosure controls and procedures are effective. We continue to review our disclosure controls and procedures and may from time to time make changes aimed at enhancing their effectiveness and to ensure that our systems evolve with our Company's business. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

(b) Changes in Internal Control Over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rules 13c-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarter ended September 30, 2008 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

On January 31, 2006, we received a written notice and request for indemnification from Seismic Micro-Technology, Inc. ("SMT"), which had been named as a defendant in a patent infringement suit entitled *Landmark Graphics Corporation, et al. v. Paradigm Geophysical Corporation, et al (Landmark)*, filed in the United States District Court for the Southern District of Texas. SMT based its request for indemnification on the terms of certain application developer agreements it entered into with us and certain of our subsidiaries. The complaint alleges infringement by SMT of U.S. patent number 6,765,570, and seeks injunctive relief, treble damages, costs and attorneys' fees. On February 22, 2006, SMT answered and filed counterclaims for declaratory judgment of non-infringement and invalidity. On February 28, 2006, we notified SMT that we would indemnify SMT from all costs and damages that may be awarded against SMT in the foregoing action, and would be responsible for attorneys' fees and expenses incurred by SMT in defense of the action, subject to certain conditions, including our right to control and direct the defense of the action on behalf of SMT. In July 2007, an agreement in principle was reached to settle this litigation and on September 11, 2007, the parties reached a definitive settlement and license agreement. The definitive agreement neither admits nor denies fault and includes a royalty based license to sell products covered by U.S. patent number 6,765,570 and related patents for the life of the patents.

We are also subject to other legal proceedings, claims and tax audits that arise in the ordinary course of business and in the opinion of management the outcome of these matters will not have a material adverse effect on our financial position, results of operations or cash flows.

ITEM 1A. RISK FACTORS

You should carefully review and consider the information regarding certain factors that could materially affect our business, financial condition or future results set forth under Item 1A (Risk Factors) in our Annual Report on Form 10-K for the fiscal year ended June 30, 2008. There have been no material changes from the factors disclosed in our 2008 Annual Report on Form 10-K, although we may disclose changes to such factors or disclose additional factors from time to time in our future filings with the Securities and Exchange Commission.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

(a) The following table sets forth information about repurchases of our common stock for the three months ended September 30, 2008.

Period of Repurchase	Total Number of Shares Purchased(1)	Average Price Paid Per Share	Total Number of Shares Purchased As Part of Publicly Announced Program
July 1-31, 2008	—	$ —	$ —
August 1-31, 2008	8,714	8.99	—
September 1-30, 2008	18,074	9.01	—
Total	26,788	$ 9.00	$ —

(1) Represents shares reacquired by the Company in connection with the surrender of shares to cover the minimum taxes on vesting of restricted stock.

ITEM 6. EXHIBITS

The following Exhibits are filed or furnished, as applicable, herewith:

10.1	Retirement Agreement, dated July 24, 2008, between Mercury Computer Systems, Inc. and James R. Bertelli.
10.2	Severance Agreement, dated July 1, 2008, between Mercury Computer Systems, Inc. and Joel B. Radford.
12.1	Ratio of Earnings to Fixed Charges.
31.1	Certification of the Chief Executive Officer pursuant to Rule 13a-14(a)/15(d)-14(a).
31.2	Certification of the Chief Financial Officer pursuant to Rule 13a-14(a)/15(d)-14(a).
32.1+	Certification of the Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

+ Furnished herewith. This certificate shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section, nor shall it be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

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MERCURY COMPUTER SYSTEMS, INC.

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, in Chelmsford, Massachusetts, on November 10, 2008.

MERCURY COMPUTER SYSTEMS

By: /s/ ROBERT E. HULT

Robert E. Hult
Senior Vice President and
Chief Financial Officer

Exhibit 10.1

Execution Version

RETIREMENT AGREEMENT

THIS RETIREMENT AGREEMENT (this "Agreement"), dated as of July 24, 2008, is entered into by and between Mercury Computer Systems, Inc., a Massachusetts corporation (the "Company"), and James R. Bertelli ("Executive"), with an address at 34 Powers Road, Hollis, New Hampshire 03049.

WITNESSETH

WHEREAS, Executive is employed by the Company as its Executive Chairman and is also a member of the Company's Board of Directors;

WHEREAS, Executive has indicated his desire to retire from his employment with the Company as of July 25, 2008 (the "Retirement Date"), and to retire from the Company's Board of Directors as of the date of the next annual meeting of shareholders of the Company (or special meeting in lieu thereof) (the "Annual Meeting Date");

WHEREAS, Executive has valuable knowledge and expertise regarding the operations of the Company;

WHEREAS, due to Executive's knowledge and expertise, the Company wishes to have the cooperation of, and access to, Executive following the Retirement Date in order for the Company to receive, and Executive to provide, consulting services and otherwise assist with the business of the Company;

WHEREAS, the Company and Executive have mutually agreed that Executive shall consult with the Company by serving as an advisor on the terms and subject to the conditions hereinafter specified; and

WHEREAS, to protect its legitimate interests, the Company seeks Executive's agreement to certain restrictions on his future activities and his agreement as to other obligations.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and Executive hereby agree as follows:

1. Transition from Executive Chairman. Executive shall retire as an employee of the Company effective on the Retirement Date and shall resign from his position as Executive Chairman, as well as from any other positions, as an officer or otherwise, that he holds with any subsidiaries of the Company. During the period between the Retirement Date and the Annual Meeting Date, Executive shall continue in the role of non-executive Chairman of the Board of Directors of the Company. During such period, Executive shall receive a Chairman's fee for serving in such capacity, payable in five monthly installments in accordance with the Company's current practice. The Chairman's fee shall be in an aggregate amount equal to $180,000, less any amounts paid to Executive for serving in the capacity of Executive Chairman of the Board of Directors from July 1, 2008 through the Retirement Date.

2. Consulting Services.

(a) Executive shall render consulting services to the Company, on the terms and conditions set forth in this Agreement, for the period commencing on the Annual Meeting Date and ending on June 30, 2010 (the "Service Period"). During the Service Period, Executive shall provide up to 20 hours of consulting services per month, as requested by the Company's Chairman of the Board, that are appropriate for an individual of Executive's knowledge and experience in the industry (the "Services"). Executive shall provide Services at such times as reasonably requested by the Company. Executive's responsibilities may include, by way of illustration, performance of special projects or reports or serving as a representative of the Company. Unless otherwise directed by the Company, the Services are not expected to include management or operational responsibilities or supervision of any employees. Executive shall report on his activities to the Chairman of the Board and, if requested by the Chairman of the Board, to management or the full Board of Directors. The Services provided by Executive will be outside of the usual course of the Company's business.

(b) Executive shall perform the Services at such place or places as shall be mutually agreed upon by Executive and the Company. The Company shall make part-time administrative support services available to Executive in connection with his performance of the Services. During the Service Period, Executive shall be allowed, but not required, to maintain an office at the Company's principal executive offices, furnished and equipped and with such office support services as are reasonably and customarily required for Executive to perform the Services.

(c) The Company and Executive acknowledge and agree that the Company shall not exercise general supervision or control over the time, place or manner in which Executive provides Services hereunder, and that in performing Services pursuant to this Agreement, Executive shall be acting and shall act at all times as an independent contractor only and not as an employee, agent, partner or joint venturer of or with the Company or any of its affiliates. Consistent with the foregoing, while Executive will perform Services under the general direction of the Chairman of the Board, Executive shall determine, in Executive's discretion, the manner and means by which the Services are accomplished. It is acknowledged and agreed that, subject to the terms of this Agreement (including, without limitation, Section 4), (i) the relationship between Executive and the Company during the Service Period is not exclusive and (ii) Executive may provide services to other clients.

(d) In consideration for providing the Services during the Service Period, the Company shall pay Executive an aggregate amount of $190,000, payable in arrears in equal monthly installments during the Service Period (the "Consulting Fees"). In addition to the Consulting Fees, the Company shall reimburse Executive for any reasonable, documented business expenses incurred by Executive in connection with the performance of the Services, in accordance with the Company's business expense reimbursement policies and procedures then in effect. Executive acknowledges his personal and sole obligation to pay all taxes, including, without limitation, all federal and state income taxes, social security taxes, unemployment and disability insurances and workers compensation, as well as any other taxes or obligations that are required by applicable laws or regulations with respect to the Consulting Fees and the Chairman's fees described in Section 1. Executive further acknowledges and agrees that he will not be eligible for any employee benefits (nor does he desire any of them) and Executive expressly waives any entitlement to such benefits.

(e) The Company agrees to indemnify Executive if Executive is a party or is threatened to be made a party to any action, suit or proceeding, whether civil, criminal, administrative or investigative (each, a "Proceeding"), by reason of the fact that he is or was serving as an advisor to the Company on the terms set forth in this Agreement or arising out of the Services furnished by Executive in accordance with the terms of this Agreement, against expenses (including reasonable attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by Executive in connection with such Proceeding ("Losses"). Upon receipt by Executive of notice of a Proceeding against Executive with respect to which indemnity may be sought under this Agreement, Executive shall promptly notify the Company in writing; provided that failure so to notify the Company shall not relieve the Company from any liability which the Company may have on account of this indemnity, except to the extent the Company shall have been materially prejudiced by such failure. The Company shall be responsible for the reasonable attorneys' fees and expenses of counsel selected by Executive to represent him in connection with any such Proceeding, provided that, the Company shall have the right to approve Executive's choice of counsel (which approval shall not be unreasonably withheld). Neither the Company nor Executive shall be liable for any settlement of any Proceeding effected without its or his written consent, which consent shall not be unreasonably withheld. Notwithstanding the foregoing, the Company shall not be responsible for any such Losses or fees and expenses to the extent that they resulted from Executive's bad faith, gross negligence or willful misconduct.

3. Equity Awards. In connection with Executive's retirement, the stock options and restricted stock awards set forth on Schedule 1 attached hereto shall become exercisable in full as of the dates set forth on said Schedule, whether or not otherwise exercisable at such time. Executive's rights to exercise any and all vested stock options that he holds to purchase common stock of the Company shall be governed by the terms of the applicable stock option plan and award agreement, including, without limitation, the "clawback" provisions of Section 6(b) of the Company's 1997 Stock Option Plan and Section 2(d) of the Company's 2005 Stock Option and Incentive Plan, each as amended, which generally provide that equity awards may be cancelled, rescinded, suspended, withheld or otherwise limited or restricted at any time if the recipient is not in compliance with all applicable provisions of the relevant award agreement and plan, or if the recipient engages in any "Detrimental Activity" (as defined therein).

4. Confidentiality and Restrictive Covenants.

(a) Executive shall not disclose to any third party any information which, during his employment or thereafter through the end of the Service Period, Executive knew, or reasonably should have known, is or was considered by the Company to be confidential and/or proprietary. The foregoing obligation is in addition to, and not in lieu of, any obligation set forth in any confidentiality or non-disclosure agreement previously signed by Executive, including that certain confidentiality agreement, dated February 23, 2003, between the Company and Executive, which terms and conditions shall remain in full force and effect and are hereby incorporated by reference.

(b) From the date this Agreement becomes effective until the fifth anniversary of the Annual Meeting Date (the "Restricted Period"), Executive shall not, without the prior written consent of the Chairman of the Board, directly or indirectly, as a sole proprietor, member of a partnership, stockholder or investor, officer or director of a corporation, or as an employee, associate, consultant, independent contractor or agent of any person, partnership, corporation or other business organization or entity:

(i) solicit or endeavor to entice away from the Company or any of its subsidiaries, any person or entity who is, or was within the then most recent 12-month period, employed by, or had served as an agent or consultant of, the Company or any of its subsidiaries;

(ii) solicit or endeavor to entice away from the Company or any of its subsidiaries any person or entity who is, or was within the then most recent 12-month period, a customer or supplier of the Company or any of its subsidiaries; or

(iii) engage in any activity associated with developing, manufacturing or marketing any products or services that are competitive with or similar to the products or services of the Company or any of its subsidiaries or the products or services that the Company or any of its subsidiaries has or had under development or that are or were the subject of active planning as of the Retirement Date or at any time thereafter through the end of the Service Period.

Executive acknowledges that the Company's business operations are worldwide and he therefore agrees that the restrictions of this Section 4(b) apply to his activities throughout the world. Executive acknowledges and agrees that the restrictions contained in this Section 4 are necessary for the protection of the Company's business and Executive considers them reasonable for such purpose. Notwithstanding the foregoing, none of the following, in and of itself, shall constitute a violation of this Section 4(b): (i) Executive's passive ownership of less than one percent (1%) of the outstanding stock of a publicly-held corporation that competes with the Company; (ii) Executive's ownership of any interest in any mutual fund, or the ownership of less than a five percent (5%) passive interest in any investment partnership or limited liability company that invests in a company, entity, business, or enterprise that is engaged in activities that are competitive with those of the Company; (iii) any investments made by third-party money managers on Executive's behalf, provided that Executive has no role in the selection or management of such investments; or (iv) any investments described on Schedule 2 attached hereto.

(c) In consideration for the covenants set forth in this Section 4, the Company shall pay Executive an aggregate amount of $500,000 (the "Non-Compete Payment"), which shall be payable in 24 monthly installments, commencing on January 2, 2009.

(d) Executive agrees that in the event of a breach of any of his obligations under this Section 4, in addition to all such other legal and equitable remedies that may be available, the Company will be entitled to terminate the consulting arrangement and associated Consulting Fees and to suspend and/or terminate the Non-Compete Payment installments. Such suspension or termination of payments pursuant to this Section 4(d) shall not be construed to limit the Company's right to recover additional damages and/or injunctive relief for a breach of this Section 4. Further, any such suspension or termination of payments shall not affect Executive's continuing obligations during the Restricted Period. In the event of a breach by Executive of any of his obligations under this Section 4, the running of the Restricted Period will be extended by the time during which Executive engages in such violations.

(e) Notwithstanding the Company's rights pursuant to the foregoing paragraph, Executive acknowledges that in the event of a breach by him of this Section 4, the Company is likely to suffer from irreparable harm and, therefore, in the event of such breach, the Company shall be entitled to restrain any such breach without the necessity of proving any actual damages and without being required to post any bond. Further, if the Company establishes in a court of competent jurisdiction that Executive has violated Section 4 of this Agreement, Executive shall reimburse the Company for its legal fees in connection with addressing such breach.

5. Future Cooperation. During the Restricted Period, Executive agrees to cooperate reasonably with the Company and all of its affiliates and related entities, including its and their outside counsel, in connection with the contemplation, prosecution and defense of all phases of existing, past and future litigation about which the Company believes Executive may have knowledge or information. Executive further agrees to make himself available at mutually convenient times during and outside of regular business hours as reasonably deemed necessary by the Company's counsel. Executive agrees to appear without the necessity of a subpoena and to testify truthfully in any legal proceedings in which the Company calls him as a witness. The Company shall reimburse Executive for any reasonable, documented out-of-pocket expenses incurred by Executive in connection with complying with this Section 5.

6. Tax Treatment. The Company shall undertake to make deductions, withholdings and tax reports with respect to payments under this Agreement to the extent that it reasonably and in good faith determines that it is required to make such deductions, withholdings and tax reports. Payments under this Agreement shall be subject to any such deductions or withholdings. Nothing in this Agreement shall be construed to require the Company to make any payments to compensate Executive for any adverse tax effect associated with any payments or for any deduction or withholding from any payment.

7. General Release of Claims. Executive hereby irrevocably and unconditionally releases, acquits and forever discharges the Company, its affiliated and related entities, its and their respective predecessors, successors and assigns, its and their respective employee benefit plans and fiduciaries of such plans, and the current and former officers, directors, shareholders, employees, attorneys, accountants and agents of each of the foregoing in their official and personal capacities (collectively referred to as the "Releasees") generally from all claims, demands, debts, damages and liabilities of every name and nature, known or unknown ("Claims") that, as of the date when Executive signs this Agreement, Executive has, ever had, now claims to have or ever claimed to have had against any or all of the Releasees. This release includes, without limitation, all Claims: relating to Executive's employment by and termination of employment with the Company; of wrongful discharge; of breach of contract; of retaliation or discrimination under federal, state or local law of the United States (including, without limitation, Claims of age discrimination or retaliation under the Age Discrimination in Employment Act and/or the Older Workers Benefit Protection Act, Claims of disability discrimination or retaliation under the Americans with Disabilities Act, and Claims of discrimination or retaliation under Title VII of the Civil Rights Act of 1964); under any other federal or state statute; of defamation or other torts; of violation of public policy;

for wages, bonuses, incentive compensation, stock, stock options, vacation pay or any other compensation or benefits; and for damages or other remedies of any sort, including without limitation, compensatory damages, punitive damages, injunctive relief and attorneys' fees; provided, however, that this release shall not affect Executive's rights (i) under this Agreement, (ii) under his existing stock option and restricted stock award agreements, (iii) to indemnification from the Company for actions or inactions by Executive as a director or officer of the Company (including, without limitation, pursuant to the by-laws of the Company and that certain Indemnification Agreement, dated as of November 17, 2003, between the Company and Executive), and (iv) to coverage under the Company's directors and officers insurance policies for actions or inactions by Executive as a director or officer of the Company, subject to the applicable terms and conditions of such policies. As a material inducement to the Company to enter into this Agreement, Executive represents that he has not assigned to any third party, and has not filed with any agency or court, any Claim released by this Agreement.

8. Representation by the Company. As of the date of this Agreement, the Company is not aware of any claims or damages of any kind that the Company or any of the Releasees has against Executive. It is understood that Executive is relying upon this representation in entering into this Agreement.

9. Time for Consideration and Effective Date. Executive acknowledges and agrees that he had the opportunity to consider this Agreement for more than twenty-one (21) days before signing it and that no modifications to this Agreement had the effect of restarting the 21-day consideration period. To accept this Agreement, Executive must return a signed original of this Agreement so that it is received by the undersigned on or before the 21st day following receipt. If Executive signs this Agreement prior to such 21st day following receipt, he acknowledges by signing this Agreement that such decision was entirely voluntary and that he had the opportunity to consider this Agreement for more than a 21-day period. For the period of seven days from the date when this Agreement becomes fully executed, Executive has the right to revoke this Agreement by written notice to the Company. For such a revocation to be effective, it must be delivered so that it is received by the Company at or before the expiration of the seven-day revocation period. This Agreement shall not become effective or enforceable during the revocation period. This Agreement shall become effective on the first business day following the expiration of the revocation period.

10. Legal Representation. This Agreement is a legally binding document and his signature will commit Executive to its terms. Executive acknowledges that he has been advised to discuss all aspects of this Agreement with his attorney, and that he has carefully read and fully understands all of the provisions of this Agreement and that he is voluntarily entering into this Agreement.

11. Termination of Payments. Notwithstanding anything to the contrary contained herein, the parties acknowledge and agree that the Company shall be entitled to terminate the payment of any amounts under Section 1 or Section 2(d) hereof if, after the date hereof, Executive shall become unable to fulfill his responsibilities thereunder for any reason. Further, in addition to the provisions of Section 4(d), the Company shall be entitled to terminate the payment of the Non-Compete Payment installments for any period following Executive's death.

12. Miscellaneous.

(a) Successors and Assigns. This Agreement shall be binding upon, inure to the benefit of and be enforceable by, as applicable, the Company and Executive and their respective personal or legal representatives, executors, administrators, successors, assigns, heirs, distributees and legatees. The Company has the right to assign this Agreement to its affiliates, successors and assigns without the necessity that the Agreement be re-signed by Executive at the time of such assignment. For the avoidance of doubt, the parties agree that any such affiliate, successor or assign of the Company shall be subject to the continuing obligations of the Company set forth herein. This Agreement is personal in nature and Executive shall not assign, transfer or delegate this Agreement or any rights or obligations hereunder. Executive acknowledges that his obligations pursuant to Section 4 shall continue and be unaffected by any change in the consulting arrangement set forth in this Agreement.

(b) Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts, without giving effect to the conflict of laws principles of such Commonwealth. The parties hereby agree that the Superior Court of the Commonwealth of Massachusetts and the United States District Court for the District of Massachusetts shall have exclusive jurisdiction of any dispute under this Agreement. Accordingly, with respect to any such court action, Executive submits to the personal jurisdiction of such courts.

(c) Amendments; Waivers. No provision of this Agreement may be amended, modified, waived or discharged unless such amendment, modification, waiver or discharge is agreed to in writing and such writing is signed by the Company and Executive.

(d) Notices. All notices and other communications hereunder shall be in writing and shall be given by hand delivery to the other party or by overnight courier service or registered or certified mail, return receipt requested, postage prepaid, addressed to Executive at the last address he has filed in writing with the Company or, in the case of the Company, at its principal executive offices, attention of the Chairman of the Board. Notices and communications shall be effective when actually received by the addressee.

(e) Enforceability. If any portion or provision of this Agreement (including, without limitation, any portion or provision of any section of this Agreement) shall to any extent be declared illegal or unenforceable by a court of competent jurisdiction, then the remainder of this Agreement, or the application of such portion or provision in circumstances other than those as to which it is so declared illegal or unenforceable, shall not be affected thereby, and each portion and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law. If, moreover, any one or more of the provisions contained in this Agreement shall for any reason be held to be excessively broad as to duration, geographical scope, activity or subject, it shall be construed by limiting and reducing it, so as to be enforceable to the extent compatible with the applicable law as it shall then appear.

(f) Headings. The headings of this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

(g) Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original but all of which together will constitute one and the same instrument.

(h) Entire Agreement. This Agreement, together with the other agreements referenced herein, sets forth the entire agreement of the parties hereto in respect to the subject matter hereof.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed and delivered as of the date first above written.

MERCURY COMPUTER SYSTEMS, INC.

By: /S/ MARK ASLETT

Name: Mark Aslett
Title: President and Chief Executive Officer

/S/ JAMES R. BERTELLI

James R. Bertelli

SCHEDULE 1

Type of Award	Grant Date	Number of Unvested Shares	Acceleration of Vesting
Stock Option (Strike price of $23.46)	7/28/04	18,750	Vested on Retirement Date upon retirement as Executive Chairman
Stock Option (Strike price of $12.41)	8/15/06	37,500	Vested upon Annual Meeting Date upon retirement as a Director
Stock Option (Strike price of $13.07)	6/5/07	26,667	Vested upon Annual Meeting Date upon retirement as a Director
Restricted Stock	8/12/05	1,632	Vested upon Annual Meeting Date upon retirement as a Director
Restricted Stock	2/22/06	10,000	Vested upon Annual Meeting Date upon retirement as a Director

SCHEDULE 2

1. Any investments made by Executive through his co-investment arrangements with the Common Angels, provided that Executive has no role in the review, selection or management of such investments.

2. Any investment made by Executive in the new venture to be started by Mark Skalabrin relating to a business for data and algorithmic trading solutions for the financial services industry, subject to the terms of the Agreement, dated as of June 6, 2008, between the Company and Mr. Skalabrin.

3. Any investment made by Executive as a private investor in the independent entity resulting from the potential spin-out by the Company of the so-called "SolMap" business.

Exhibit 10.2

SEPARATION AGREEMENT AND RELEASE

This Separation Agreement and Release (the “Agreement”) is entered into by and between Mercury Computer Systems, Inc. (the “Company”) and Joel B. Radford, 10 Shedd Lane, Hollis, New Hampshire 03049 (“Mr. Radford”).

A. As a result of issues that have been discussed with Mr. Radford, the Company has decided to terminate Mr. Radford’s employment.

B. The parties desire to enter into a written agreement embodying their mutual understanding and promises concerning the resolution of all issues concerning Mr. Radford’s employment at the Company and the termination of that employment.

Now, therefore, in consideration of the mutual promises set forth below, and intending to be legally bound, the parties agree as follows:

1. Separation Date. Mr. Radford’s last day of employment at the Company will be June 30, 2008 (the “Separation Date”). As of the end of the business day on the Separation Date, Mr. Radford shall cease to hold the position of Vice President, Strategic Operations. Subject to the execution of this Agreement and the expiration of the revocation period set forth in Section 14 of this Agreement, Mr. Radford’s separation from the Company shall be treated as a termination without cause.

2. Severance Pay. In full consideration of Mr. Radford’s acceptance of all terms and conditions of this Agreement, and subject to his performance hereunder, the Company shall also provide Mr. Radford with the following special benefits, which Mr. Radford acknowledges and agrees he is not owed and to which he would not otherwise be entitled:

a. For the period starting on the Effective Date (as defined in Section 17 of this Agreement) and continuing for fifty-two (52) weeks thereafter (the “Severance Period”), the Company shall pay Mr. Radford’s regular base salary rate in effect on the Separation Date, less legally required and voluntarily authorized deductions (the “Severance Pay”). The Severance Pay shall be paid to Mr. Radford in accordance with the Company’s customary payroll practices beginning promptly after the Effective Date. Mr. Radford hereby acknowledges and agrees that the Severance Pay will provide him with at least four (4) weeks more in salary continuation than he would otherwise be entitled to under the standard practices ordinarily applicable to employees of the Company whose employment is terminated.

b. Mr. Radford will be eligible to earn a fiscal year 2008 target bonus payment, which will be based on the Company’s financial performance in fiscal year 2008 and the Company’s evaluation of Mr. Radford’s achievement of his specific Management-by-Results objectives, as determined by the Company in its sole discretion.

c. If Mr. Radford is considered a “specified employee,” within the meaning of Section 409A of the Internal Revenue Code of 1986, as amended (the “Code”), on his Separation Date and the Severance Pay payable hereunder is considered deferred compensation subject to Section 409A of the Code, no payments of Severance Pay will be paid during the six-(6)-month period following the Separation Date. Any amount that would have been paid during such six-(6)-month period but for the provisions of the preceding sentence shall be paid in a lump sum within the first five (5) days of the seventh (7th) month following the Separation Date.

d. Any unpaid portions of the compensation described in Sections 2(a) and 2(b) of this Agreement shall be paid to Mr. Radford’s estate in the event of his death, on the condition that he has signed this Agreement and has not exercised his right to revoke this Agreement under Section 14 of this Agreement.

3. Benefits.

a. During the Severance Period, the Company will pay its regular contribution towards Mr. Radford's participation in the Company's group health insurance plan, provided that Mr. Radford elects to continue such participation by signing and returning the COBRA form that will be mailed to his home. Thereafter, Mr. Radford will be responsible for the entire premium cost of his participation in such plans, in accordance with the federal law known as COBRA and the terms of those plans.

b. The Company shall pay the cost of providing Mr. Radford with outplacement services up to a maximum of $30,000 provided that (i) Mr. Radford begins to utilize such services within six (6) months following the Separation Date, and (ii) such services are provided by an outplacement provider approved by the Company (which approval shall not be unreasonably withheld, delayed, or conditioned). Such payment shall be made by the Company directly to the service provider promptly after such services have been provided to Mr. Radford and Mr. Radford has given the Company documentation confirming that such services have been so provided.

c. Except as may be otherwise provided in this Agreement, Mr. Radford's right to any and all Company benefits will terminate on the Separation Date.

4. Return of Company Property. Mr. Radford acknowledges, warrants, and represents that, as of the date of his signing this Agreement, he has returned all property owned by the Company that was in his possession, custody, or control, including, but not limited to, any credit cards (or credit cards on which the Company is a guarantor), building or office keys, identification cards, computers and computer equipment, telephones, pagers, fax machines, and printers. Mr. Radford agrees to repay to the Company the amounts of any temporary or permanent advances previously made to him by the Company which remain outstanding and any unpaid balances on any credit cards of monies due to the Company or for which the Company is a guarantor.

5. Integrity of Company Records. Mr. Radford agrees to leave intact all electronic Company documents, including those that he developed or helped to develop during his employment. Mr. Radford warrants and represents to the Company that he has not deleted, destroyed, altered, concealed, or falsified any documents, emails, or other records of the Company, and that he has not copied any such materials without written permission from the Company, except as may be authorized by the Company's written policies.

6. Protection of Confidential Information. Mr. Radford acknowledges that in the course of his employment with the Company or any of its predecessor companies, he has had access to confidential information and trade secrets relating to business affairs of the Company and/or its predecessor companies or subsidiaries or affiliates ("Confidential Information"). Mr. Radford agrees to maintain the confidentiality of the Confidential Information. Mr. Radford agrees that, at no time following his execution of this Agreement, will he disclose or otherwise make available to any person, company, or other party, any Confidential Information. This Agreement shall not limit any obligations that Mr. Radford may have under applicable federal or state laws or any other agreements that he may have with the Company.

7. Business Expenses and Compensation. Mr. Radford acknowledges that he has been reimbursed by the Company for all business expenses incurred in connection with his employment at the Company and that no other reimbursements are owed to him. Mr. Radford further acknowledges that he has received payment in full for all services rendered in conjunction with his employment at the Company and that no other compensation is owed to him.

8. Confidentiality of this Agreement. To the extent permitted by law, Mr. Radford agrees to hold the existence and provisions of this Agreement in confidence, and not to disclose, directly or by implication, its existence or any of its provisions, except (a) to his spouse or immediate family members, or his legal and financial advisors (in each case on the condition that those parties cannot disclose the same to any others, except

as required by law), and (b) to the extent required by law or to the extent necessary to enforce his rights under this Agreement.

9. Entitlement to Unemployment. The Company agrees not to challenge Mr. Radford's entitlement to applicable unemployment compensation benefits.

10. Advice of Counsel. Mr. Radford is advised to consult with an attorney before signing this Agreement. By signing this Agreement, Mr. Radford acknowledges and agrees that the Company has advised him in writing to consult with an attorney concerning this Agreement, including, but not limited to, by providing Mr. Radford with a copy of this Agreement to review in detail before signing. Mr. Radford further acknowledges and agrees that he is responsible for payment of all of his own legal fees and expenses incurred in connection with the review of this Agreement and the resolution of any and all Claims (as defined herein) that he may have against the Company.

11. No Solicitation or Disparagement. Mr. Radford shall not, either directly or indirectly, on his behalf or on the behalf or others, solicit, divert, or hire away, or attempt to solicit, divert, or hire away, to any other business, any person employed by the Company or its subsidiaries or affiliates whether or not such employee is a full-time employee or a temporary employee of the Company or its subsidiaries or affiliates. Mr. Radford shall not, either directly or indirectly, disparage the Company or its services or products or any of the persons or entities that are released under the provisions of Section 12 of this Agreement. Nothing in this Agreement shall prohibit Mr. Radford from providing truthful testimony in response to a subpoena or other legal process.

12. Release.

a. Released Claims. In consideration of the payment by the Company to Mr. Radford of the Severance Pay described in Section 2(a) of this Agreement, which Mr. Radford acknowledges he would not otherwise be entitled to receive, Mr. Radford, for himself and his heirs, executors, administrators, representatives, and successors, hereby fully, forever, and unconditionally releases, acquits, and discharges the Company and its subsidiaries, other affiliated entities, predecessors, successors, and assigns, and the officers, directors, shareholders, holders of any interest, principals, employees, attorneys, agents, and other representatives of or in each of them (the "Released Parties") of and from any and all claims, charges, complaints, actions, causes of action, suits, rights, debts, sums of money, agreements, covenants, contracts, promises, omissions, representations, accounts, reckonings, obligations, damages, costs, liabilities, expenses, and demands (the previously listed items being sometimes referred to collectively in this Agreement as "Claims") of any kind and nature whatsoever, whether known, unknown, presently existing, contingent, or conditional, in law or in equity, which Mr. Radford ever had or now has against the Released Parties, for or by reason of any matter, cause, or thing whatsoever from the beginning of the world to the date on which Mr. Radford signed this Agreement, including, but not limited to, any and all Claims arising out of Mr. Radford's employment at, and/or separation from, the Company (the "Released Claims"), which Released Claims shall include, but not be limited to, any Claims under or in connection with any or all of the following:

i. The Massachusetts Fair Employment Practices Act, which includes Massachusetts General Law, Chapter 151B, as amended; the Massachusetts Privacy Statute, G.L. c. 214, § 1B, as amended; the Massachusetts Wage Payment Statute, G.L. c. 149, § 148 *et seq.*, as amended; the Massachusetts Sexual Harassment Statute, G.L. c. 214, § 1C, as amended; the Massachusetts Consumer Protection Act, G.L. c. 93 A, as amended; the Massachusetts Civil Rights Act, G.L. c.12, § 11, as amended; and the Massachusetts Equal Rights Act, G.L. c. 93, as amended;

ii. The Age Discrimination in Employment Act, 29 U.S.C. § 621 *et seq.*, as amended by the Older Workers Benefit Protection Act, 29 U.S.C. § 626 *et seq.*;

iii. The Americans with Disabilities Act, 42 U.S.C. § 12101 *et seq.*;

iv. The Employee Retirement Income and Security Act, 29 U.S.C. § 1001, *et seq.*;

v. The Fair Labor Standards Act, 29 U.S.C. § 201 *et seq.*;

vi. Sections 1981 through 1988 of Title 42 of the United States Code, as amended;

vii. The Equal Pay Act of 1963, Public Law 88-38;

viii. The Family and Medical Leave Act, 29 U.S.C. § 2601 *et seq.*;

ix. The National Labor Relations Act, 29 U.S.C. § 151 *et seq.*;

x. The Occupational Safety and Health Act, 29 U.S. C. § 651 *et seq.*;

xi. The Rehabilitation Act, 29 U.S.C. § 701 *et seq.*;

xii. Title VII of the Civil Rights Act of 1964, as amended by the Civil Rights Act of 1991, 42 U.S.C. § 2000e *et seq.*;

xiii. The Worker Adjustment and Retraining Notification Act of 1988, 29 U.S.C. § 2101 *et seq.*;

xiv. Any other federal, state, or local law, including any attorneys' fees that could be awarded in connection with these or any other Claims;

xv. Any and all common-law Claims under contract or tort theories, including, but not limited to:

1. Breach of contract, breach of an express or implied promise, breach of the implied covenant of good faith and fair dealing, or breach of fiduciary duty;
2. Interference with contractual relations;
3. Promissory estoppel;
4. Breach of employee handbooks, manuals, or other policies;
5. Any Claim under or associated with any of the Company's equity compensation plans or arrangements, except with respect to any stock options and restricted stock awards of the type specified in Section 3 of this Agreement;
6. Assault or battery;
7. Invasion of privacy;
8. False imprisonment;
9. Intentional or negligent misrepresentation, or fraud;
10. Retaliation, or intentional or negligent infliction of emotional distress;
11. Defamation (including, but not limited to, all forms of libel, slander, and self-defamation);
12. Wrongful discharge, or wrongful discharge in violation of public policy;
13. Negligence, including, but not limited to, negligent hiring, retention, or supervision;
14. Any other Claim based on any theory, whether developed or undeveloped, arising from or related to Mr. Radford's employment or the termination of his employment at the Company, or any other fact or matter occurring prior to Mr. Radford's signing of this Agreement;
15. Any other Claim arising under or related to any other federal, state, or local human rights, civil rights, wage-hour, pension, or labor laws, rules, regulations, or public policies; and/or
16. Any other Claim arising under common law.

b. Exclusions. The only Claims excluded from the Released Claims are (i) Claims for breach of this Agreement by the Company, (ii) Claims that first arise after the date on which Mr. Radford signed this Agreement, (iii) Claims concerning vested benefits under any retirement and/or pension plans or other plans under the Employee Retirement Income Security Act (29 U.S.C. § 1001 *et seq.*), and (iv) Claims to defense and indemnification by the Company for actions taken by Mr. Radford in the course and scope of his employment at the Company, provided, however, that the Company makes no representations or warranties pertaining to Mr. Radford's right to make any such Claims. Nothing in this Agreement shall prohibit Mr. Radford from filing a Claim with, cooperating with, or participating in any investigation or proceeding conducted by, the federal Equal Employment Opportunity Commission or a state Fair Employment Practices Agency (except that Mr. Radford acknowledges that he may not be able to recover any monetary benefits in connection with such Claim or proceeding).

13. Covenant Not to Sue. Mr. Radford also covenants not to sue the Released Parties on any Claim covered by the foregoing release, provided that this covenant will not apply to Claims under the Age Discrimination in Employment Act. Thus, any legal action challenging this Agreement that directly pertains to the Age Discrimination in Employment Act is not prohibited by this covenant not to sue, and such legal action would not constitute a breach of this Agreement. Mr. Radford agrees that neither he nor any of his heirs, representatives, or assigns has asserted in any forum any of the Claims described in the foregoing release. Mr. Radford further agrees that neither he nor any of his heirs, representatives, or assigns will assert in any forum any of the Claims described in the foregoing release, except that he may challenge the validity of the foregoing release under the Age Discrimination in Employment Act and he may file a charge with an administrative agency or as otherwise permitted by law. Notwithstanding the generality of this subsection (c), the foregoing release applies to the extent permitted by law, and, in the event that any Claim is permitted by law, Mr. Radford expressly waives his right to recover any relief, damages, and/or monetary benefit as a result of any such Claim. This Agreement is not intended to, and does not, govern any Claims that cannot be released by private agreement.

14. Right to Revoke. Within seven (7) days after his signing of this Agreement, Mr. Radford may revoke this Agreement for any reason by informing the Company of his intent to revoke this Agreement. This Agreement will not become effective or enforceable unless and until Mr. Radford executes the Agreement and the seven-(7)-day revocation period has expired. Any such revocation must be (a) in writing, (b) received by the Company within the seven-(7)-day revocation period, (c) sent by hand delivery or certified mail with return receipt requested, and (d) addressed as follows:

Craig A. Saline
Senior Vice President, Human Resources
Mercury Computer Systems, Inc.
201 Riverneck Road
Chelmsford, Massachusetts 01824

In the event that Mr. Radford effectively revokes the Agreement, neither Mr. Radford nor the Company will have any rights or obligations whatsoever under this Agreement. Any such revocation does not, however, affect Mr. Radford's termination of employment at the Company, effective as of the date set forth in Section 1 of this Agreement.

15. Adequate Time to Review. Mr. Radford shall have at least twenty-one (21) days in which to consider the provisions of this Agreement before signing it. Mr. Radford may, if he so chooses, sign this Agreement prior to the expiration of such twenty-one-(21)-day period, and, if he does so, his signing of this Agreement will cause the seven-(7)-day revocation period specified in Section 14 of this Agreement to begin.

16. Knowing and Voluntary Waiver. Mr. Radford hereby acknowledges and agrees that (a) he has read this Agreement, (b) the Company has advised him in writing to consult with an attorney of his choosing prior to

signing this Agreement, (c) he understands the provisions of this Agreement, or to the extent that he has not understood any section, paragraph, sentence, clause, or provision, he has taken steps to ensure that it was explained to him, (d) he is not relying on any representations by any representative of the Company concerning the meaning of any provision of this Agreement, and (e) he has entered into this Agreement knowingly and voluntarily. Mr. Radford understands and agrees that by entering into this Agreement he is waiving any and all rights or claims that he might have arising under the Age Discrimination in Employment Act, as amended by the Older Workers Benefits Protection Act, and that he has received consideration beyond that to which he was entitled in the absence of this Agreement.

17. Effective Date. This Agreement shall not become effective until the day that is eight (8) calendar days after Mr. Radford has signed it and returned it to the person named in Section 14 of this Agreement, and then only if it has not been revoked by Mr. Radford in accordance with the provisions of Section 14 of this Agreement (the "Effective Date").

18. Agreements Concerning Certain Activities. To the extent permitted by law, Mr. Radford agrees that he will not in any manner or by any means directly or indirectly instigate, initiate, promote, counsel, encourage, testify, aid, provide evidence or information to, or assist in (a) any investigations, actions, disputes, differences, grievances, suits, causes of action, complaints, or claims against or relating to the Released Parties, or (b) any activities detrimental to the interests or goodwill of the Release Parties, except under a subpoena or court order to do so, and he certifies to the Company that he has not previously done so. Nothing in this Agreement shall prohibit or restrict Mr. Radford from (a) providing information to, or otherwise assisting in, an investigation by Congress, the Securities and Exchange Commission ("SEC"), the Equal Employment Opportunity Commission ("EEOC"), the Massachusetts Commission Against Discrimination ("MCAD"), the National Labor Relations Board ("NLRB"), or any other federal regulatory or law enforcement agency or self-regulatory organization ("SRO"), and/or (b) testifying, participating, or otherwise assisting in a proceeding relating to an alleged violation of any federal law relating to fraud or any rule or regulation of the SEC, EEOC, NLRB, or any SRO.

19. No Admission of Liability. This Agreement is not an admission by the Company of any liability or wrongdoing, or an admission by the Company that any of its actions or inactions are unjustified, unwarranted, discriminatory, wrongful, or in violation of any federal, state, or local law, and this Agreement shall not be interpreted as such. The Company disclaims any liability to Mr. Radford or any other person on the part of itself and/or its current or former directors, officers, employees, representatives, and agents. Mr. Radford agrees and acknowledges that this Agreement shall not be interpreted to render either the Company or Mr. Radford to be a prevailing party for any purpose, including, but not limited to, an award of attorneys' fees under any statute or otherwise.

20. No Pending Complaints. By signing this Agreement, Mr. Radford acknowledges that he has not filed any Claims against any of the Released Parties with any federal, state, or local court or administrative agency.

21. Successful Enforcement of Breach. If it is determined by an arbitrator under Section 24 of this Agreement that Mr. Radford is in breach of any provision of this Agreement, the Company will have no further obligations under Section 2 of this Agreement. In the event of Mr. Radford's breach and the Company's successful enforcement of its rights under this Agreement by judgment or settlement, then in addition to any other remedies and damages available under law, the Company shall be entitled to repayment of all monies paid to Mr. Radford pursuant to this Agreement, and shall also be entitled to an award for all legal expenses and fees, including, but not limited to, the reasonable fees and disbursements of counsel, incurred by the Company in connection with its efforts to obtain or enforce any benefit or right provided by this Agreement. If it is determined by an arbitrator under Section 24 of this Agreement that the Company is in breach of any provision of this Agreement, then in addition to any other remedies and damages available under law, Mr. Radford shall be entitled to an award of all legal expenses and fees, including, but not limited to, the reasonable fees and disbursements of counsel, incurred by him in connection with his efforts to obtain or enforce any benefit or right provided by this Agreement.

22. No Adequate Remedy at Law. Mr. Radford agrees that it is impossible to measure in money all of the damages that will be incurred by the Company by reason of his breach of any of his obligations under this Agreement. Therefore, if the Company shall institute any action or proceeding to enforce the provisions of this Agreement, Mr. Radford hereby waives, and shall not raise in any such action or proceeding, the claim or defense that the Company has an adequate remedy at law.

23. No Assignment. This Agreement is personal to Mr. Radford and not assignable.

24. Governing Law and Arbitration. This Agreement shall be governed by the laws of the Commonwealth of Massachusetts, without regard to the conflict of laws principles thereof. If any part of this Agreement is construed to be in violation of any law, such part shall be modified to achieve the objective of the parties to the fullest extent permitted, and the balance of this Agreement shall remain in full force and effect. All disputes arising out of, or in connection with, the interpretation or breach of this Agreement, which are not promptly settled by mutual agreement of the parties, shall be finally settled by arbitration in accordance with the Employment Rules of the American Arbitration Association. Unless otherwise agreed to in writing by both parties, such arbitration shall be conducted in Boston, Massachusetts.

25. Entire Agreement. This Agreement contains the entire agreement between Mr. Radford and the Company with respect to the subject matter of this Agreement, and there are no promises, undertakings, or understandings as to such subject matter outside of this Agreement, except as may otherwise be stated in this Agreement. This Agreement supersedes all prior or contemporaneous discussions, communications, understandings, negotiations, and agreements, whether written or oral, with respect to Mr. Radford's employment at the Company, termination of that employment, and all related matters, except as may otherwise be stated in this Agreement. Mr. Radford's rights to payments or employee benefits from the Company are specified exclusively and completely in this Agreement. This Agreement may only be modified or amended by a writing signed by an officer of the Company and by Mr. Radford.

In witness whereof, the parties have executed this Agreement under seal by their signatures below.

MERCURY COMPUTER SYSTEMS, INC.

By:	/s/ MARK ASLETT **Mark Aslett** **President and Chief Executive Officer**		/s/ JOEL B. RADFORD **Joel B. Radford**
Date:	7/1/08	Date:	7/1/08

EXHIBIT 12.1

MERCURY COMPUTER SYSTEMS, INC.

COMPUTATION OF RATIO OF EARNINGS TO FIXED CHARGES
(Dollars in thousands)

	Year Ended June 30, 2004	Year Ended June 30, 2005	Year Ended June 30, 2006	Year Ended June 30, 2007	Year Ended June 30, 2008	Three Months Ended September 30, 2008
Income (loss) from continuing operations, before income taxes	$ 32,233	$ 43,123	$ (18,360)	$ (37,182)	$ (32,975)	$ (1,032)
Fixed charges:						
Interest expense	1,304	3,448	3,262	3,395	2,517	626
Portion of rental expense representative of interest factor	366	593	766	964	1,459	332
Amortization of deferred financing fees	137	718	840	846	846	212
Total fixed charges	$ 1,807	$ 4,759	$ 4,868	$ 5,205	$ 4,822	$ 1,170
Income (loss) from continuing operations, before income taxes plus fixed charges	$ 34,040	$ 47,882	$ (13,492)	$ (31,977)	$ (28,153)	$ 138
Ratio of earnings to fixed charges (A)	18.8	10.1	(2.8)	(6.1)	(5.8)	0.1
Coverage deficiency	$ —	$ —	$ 18,360	$ 37,182	$ 32,975	$ 1,032

(A) The ratio of earnings to fixed charges is calculated by dividing (a) earnings before income taxes and fixed charges by (b) fixed charges. Fixed charges include interest expense (including an estimate of the interest within rental expense) and amortization of deferred financing fees.

EXHIBIT 31.1

CERTIFICATION

I, Mark Aslett, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Mercury Computer Systems, Inc.;
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(s) 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 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 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(s) 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 the 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.

Date: November 10, 2008

/S/ MARK ASLETT

Mark Aslett
PRESIDENT AND CHIEF EXECUTIVE OFFICER
[PRINCIPAL EXECUTIVE OFFICER]

CERTIFICATION

I, Robert E. Hult, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Mercury Computer Systems, Inc.;
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(s) 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 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 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(s) 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 the 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.

Date: November 10, 2008

/S/ ROBERT E. HULT

Robert E. Hult
SENIOR VICE PRESIDENT AND
CHIEF FINANCIAL OFFICER
[PRINCIPAL FINANCIAL OFFICER]

EXHIBIT 32.1

Mercury Computer Systems, Inc.

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 Mercury Computer Systems, Inc. (the "Company") on Form 10-Q for the period ended September 30, 2008 as filed with the Securities and Exchange Commission (the "Report"), we, Mark Aslett, President and Chief Executive Officer of the Company, and Robert E. Hult, Senior Vice President and Chief Financial Officer of the Company, certify, pursuant to Section 1350 of Chapter 63 of Title 18, United States Code, that to our knowledge the Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended, and the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 10, 2008

/S/ MARK ASLETT

Mark Aslett
PRESIDENT AND CHIEF EXECUTIVE OFFICER

/S/ ROBERT E. HULT

Robert E. Hult
SENIOR VICE PRESIDENT AND
CHIEF FINANCIAL OFFICER

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.