UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM 8-K

CURRENT REPORT Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of report (Date of earliest event reported): January 27, 2009

Mercury Computer Systems, Inc. (Exact Name of Registrant as Specified in Charter)

Massachusetts (State or Other Jurisdiction of Incorporation)

000-23599 (Commission File Number)

04-2741391 (IRS Employer Identification No.)

201 Riverneck Road, Chelmsford, Massachusetts (Address of Principal Executive Offices)

01824 (Zip Code)

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

N/A

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 2.02 Results of Operations and Financial Condition.

On January 27, 2009, Mercury Computer Systems, Inc. (the "Company") issued a press release regarding its financial results for the quarter ended December 31, 2008. The Company's press release is attached hereto as Exhibit 99.1 to this Current Report on Form 8-K and incorporated herein by reference.

Information in Item 2.02 of this Current Report on Form 8-K and the Exhibit attached hereto shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act, regardless of any general incorporation language in such filing.

USE OF NON-GAAP FINANCIAL MEASURES

In addition to reporting financial results in accordance with generally accepted accounting principles, or GAAP, the Company provides non-GAAP financial measures adjusted to exclude certain specified charges, which the Company believes are useful to help investors better understand its past financial performance and prospects for the future. However, the presentation of non-GAAP financial measures is not meant to be considered in isolation or as a substitute for financial information provided in accordance with GAAP. Management believes these non-GAAP financial measures assist in providing a more complete understanding of the Company's underlying operational results and trends, and management uses these measures along with their corresponding GAAP financial measures to manage the Company's business, to evaluate its performance compared to prior periods and the marketplace, and to establish operational goals.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

 Exhibit
 Description

 99.1
 Press Release, dated January 27, 2009, of 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 hereunto duly authorized.

MERCURY COMPUTER SYSTEMS, INC. (Registrant)

Date: January 27, 2009

By: /s/ Robert E. Hult

Robert E. Hult Senior Vice President, Chief Financial Officer and Treasurer

EXHIBIT INDEX

ExhibitDescription99.1Press Release, dated January 27, 2009, of Mercury Computer Systems, Inc.



News Release

FOR IMMEDIATE RELEASE

Mercury Computer Systems Reports Second Quarter Fiscal 2009 Revenues of \$50.7 Million

Operating cash flow of \$2.7 million GAAP losses per share of \$(0.77) include goodwill and long-lived asset impairment charges of \$(0.66) per share Non-GAAP earnings per share of \$0.03

CHELMSFORD, Mass. - January 27, 2009 - Mercury Computer Systems, Inc. (NASDAQ: MRCY) reported results for its second quarter of fiscal 2009, which ended December 31, 2008.

The results of Mercury's Visage Imaging business, which Mercury announced today has been sold to Pro Medicus Limited, are included in continuing operations as of December 31, 2008, but will be reflected as discontinued operations in subsequent periods, including the reclassification of prior period results for comparison.

Second quarter revenues were \$50.7 million, an increase of \$1.6 million over the first quarter of fiscal 2009, and a decrease of \$0.6 million from the prior year's second quarter.

Second quarter GAAP net losses were \$(17.1) million, or \$(0.77) per share. The second quarter GAAP net losses included \$14.6 million, or \$(0.66) per share, in goodwill and other long-lived asset impairment charges relating to Mercury's Visage Imaging business.

Second quarter GAAP operating losses were \$(16.6) million and include \$18.1 million in charges, consisting of \$14.6 million in goodwill and long-lived asset impairment charges, \$2.6 million in stock-based compensation costs, \$0.8 million in amortization of acquired intangible assets, and \$0.3 million in restructuring expenses. Excluding the impact of these charges, second quarter non-GAAP operating income was \$1.5 million, as compared to \$0.1 million in the second quarter of the prior year. Second quarter non-GAAP net income was \$0.7 million. Non-GAAP diluted earnings per share were \$0.03 for the second quarter.

Cash flows from operating activities were a net inflow of \$2.7 million in the second quarter. Cash, cash equivalents, and marketable securities as of December 31, 2008 were \$197.9 million, an increase of \$30.9 million from September 30, 2008. During the quarter ended December 31, 2008, Mercury received proceeds from borrowings under its line of credit with UBS in the amount of \$31.4 million. This line of credit was made available to Mercury, on a "no-net-cost" basis, during the second quarter as part of a settlement related to Mercury's auction-rate securities investments held by UBS.

"Mercury performed well in the second quarter," said Mark Aslett, President and CEO of Mercury Computer Systems, Inc. "We continued to execute on a plan to focus the business, improve Mercury's profitability, increase our cash flow, and position the Company for renewed growth in fiscal 2010 and beyond. As expected, this was another strong quarter for our ACS defense business, and Mercury Federal made further progress in expanding the Company's total addressable defense market."

"We also made progress toward our goal of divesting our unprofitable and non-core businesses by the end of this fiscal year," Aslett said. "As announced earlier this afternoon, today we signed and closed on the sale of Mercury's Visage Imaging business to Pro Medicus Limited, an Australian company in the healthcare and life sciences space. This removes the business that has been generating Mercury's most significant operating losses and advances us toward completing our portfolio rationalization activities. Looking forward, we are confident that Mercury will conclude the fiscal year as a more focused and profitable enterprise with a strong and growing defense business."

Backlog

The Company's total backlog at the end of the second quarter was \$82.6 million, a \$5.2 million sequential decrease from the first quarter of the fiscal year, and a \$7.0 million decrease from the same quarter last year as reported. Of the current total backlog, \$71.8 million represents shipments scheduled over the next 12 months. The book-to-bill ratio was 0.90 for the second quarter and 0.95 for the six months ended December 31, 2008.

Revenues by Operating Unit

<u>Advanced Computing Solutions (ACS)</u> — Revenues for the quarter from ACS were \$44.0 million, representing 87% of the Company's total revenues. Approximately 75% of ACS revenue for the quarter related to defense business as compared to approximately 67% in the same quarter last year.

<u>Visage Imaging (Visage)</u> — Revenues for the quarter from Visage were \$2.5 million, an increase of \$0.5 million as compared to the first quarter of the current fiscal year.

<u>Visualization Sciences Group (VSG)</u> — Revenues for the quarter from VSG were \$3.6 million, an increase of \$1.3 million as compared to the first quarter of the current fiscal year.

<u>Emerging Businesses</u> — The results for this segment primarily consist of Mercury's wholly-owned subsidiary Mercury Federal Systems, Inc. (MFS). During the second quarter, MFS secured \$1.2 million in bookings and recorded \$1.1 million in revenues.

The revenues by operating unit do not include adjustments to eliminate any inter-segment revenues.

Business Outlook

This section presents our current expectations and estimates, given current visibility, on our business outlook for the upcoming fiscal quarter. It is possible that actual performance will differ materially from the estimates given - either on the upside or on the downside. Investors should consider all of the risks, including those listed in the Safe Harbor Statement below, with respect to these estimates, and make themselves aware of the risk factors that may impact the Company's actual performance.

The following business outlook expectations exclude the results of Mercury's Visage Imaging business unit, which was sold in January 2009 and will be reported as a discontinued operation for all periods beginning in the third quarter of fiscal 2009.

For the third quarter of fiscal year 2009, revenues are currently expected to be in the range of approximately \$48 million to \$50 million. At this range, GAAP losses from continuing operations per share are currently expected to be in the range of a loss of \$(0.02) to earnings of \$0.03. Excluding the impact of stock-based compensation costs, amortization of acquired intangible assets, and the difference between expected GAAP and non-GAAP tax rates, third quarter fiscal year 2009 non-GAAP earnings per share from continuing operations are currently expected to range from \$0.05 to \$0.09.

Recent Highlights

October – Mercury announced it was awarded a contract from a leading provider of military and homeland security products, to enable product and technology leverage in the customer's current and next-generation airborne surveillance products. These products are focused on the ISR (Intelligence, Surveillance and Reconnaissance) initiatives approved by Defense Secretary Robert Gates in early August 2008. The ISR Task Force initiatives are designed to meet growing demand for processing, exploiting, and disseminating battlefield surveillance data. The contract calls for Mercury to deliver software driver modifications and an optimized application programming interface (API), as well as PMC (PCI mezzanine card) thermal analysis and system integration services, for Mercury's conduction-cooled MYRIAD-4130 VME Host and Carrier Boards and the Mercury multicore software platform.

October – Mercury released configuration and performance details on the PowerBlock[®] 50 real-time computing system. Measuring approximately 4" x 5" x 6" and weighing less than 7 pounds, the PowerBlock 50 establishes a new class of rugged embedded computing capability, putting up to 172 GFLOPS of processing power next to the sensor in space-constrained platforms such as unmanned vehicles. The PowerBlock 50 chassis is designed throughout to isolate its internal electronics from all external environmental and physical conditions, allowing deployments in harsh environments. It can be tailored to meet the needs of virtually any high-performance signal processing application.

October – Mercury announced availability of the newest member of the Ensemble[™] product family, the MXI-205 Xilinx V5 FPGA AMC (advanced mezzanine card). The MXI-205 AMC is a powerful FPGA-based processor and I/O module that combines a Virtex-5 FPGA compute node (CN) with switch fabric flexibility and multiple FMC (FPGA mezzanine card)-based I/O options to address a variety of complex, high-bandwidth, low-latency computing challenges. With access cutting-edge FPGA processing, customers can also easily integrate a wide range of proprietary and standard interfaces, leveraging the versatile FMC modules from Mercury or other suppliers.

October – Mercury announced the election of Russell K. Johnsen as Chairman of the Company's Board of Directors, effective November 17, 2008. Mr. Johnsen has served on Mercury's Board since 2001 and succeeded Mr. Bertelli, who served as its Chairman from 2002 to November 2007 and its Executive Chairman from November 2007 to July 2008. As a senior executive, retired from the semiconductor industry, Mr. Johnsen provides consulting on technology strategy to high-tech companies.

November – Mercury unveiled its multi-GPU development platform at MILCOM 2008 in San Diego, California. The VXS-based Mercury Sensor Stream Computing Platform offers unsurpassed scalability in compute power, performance, and thermal management, and allows for much greater tunable performance for a variety of commercial and defense applications. Leveraging the dual-core Intel-based Mercury VX6-200 single-board computer, the platform addresses the issues of time, bandwidth, and resources targeted at deployable, rugged applications in the ISR space.

November – Mercury announced the election of William K. O'Brien to its Board of Directors. Mr. O'Brien was Chairman and CEO of Enterasys Networks from April 2002 until March 2006. In this role, he initiated substantial changes in management, products, cost structure, and strategy. Prior to that, he built a 30-year career at PricewaterhouseCoopers, where he served in a number of roles including Chief Operating Officer of the former Coopers & Lybrand. Mr. O'Brien has served on

numerous boards over the years including Camp Dresser & McKee, Color Kinetics, Enterasys Networks, Bentley College, Caritas Christi, The Boston Chamber of Commerce, and The Pike School.

November – Mercury announced a \$1.3 million initial order from a leading semiconductor equipment manufacturer for the Ensemble Application Platform. Together with customized system management software and an optimized middleware, the Ensemble AdvancedTCA[®] Application Platform will provide flexible, high-performance computing for the customer's next-generation precision wafer handling and positioning system. The design win is one of several that Mercury has received from this customer over the past few years to demonstrate and provide high-performance RapidIO-based computing for their demanding applications.

November – Mercury announced the availability of the RACE++® Series PowerPC[®] 7448 Multicomputer. The RACE++ Series PowerPC 7448 Multicomputer is a high-performance, drop-in product upgrade that adds significant improvements in processor speed and L2 cache size, resulting in a 20-30% increase in application performance, with no application software changes required. The Mercury RACE++ Series interconnect fabric represents the most robust and proven approach for multicomputer digital signal processing, with products deployed in more than 1,000 programs worldwide.

December – Mercury announced availability of its initial offering of the new Echotek[®] Series family of high-performance, VirtexTM-5-based digital receivers. The Echotek Series DCM-V5-XMC digital receiver features the latest in A/D and D/A technology, allowing for high-speed/high-resolution data conversion while still preserving the quality of the original signal. The new product is especially well suited for beamforming and direction-finding, as required by many radar, signals intelligence, electronics intelligence, and communications applications.

Conference Call Information

Mercury will host a conference call on Tuesday, January 27, 2009, at 5:00 p.m. EST to discuss the second quarter 2009 results and review the financial and business outlook for the remainder of the year.

To listen to the conference call, dial (888) 609-5696 in the USA and Canada, and (913) 312-1304 in all other countries. The conference code number is 8392984. Please call five to ten minutes prior to the scheduled start time. This call will also be broadcast live over the web at www.mc.com/investor under Financial Events.

A replay of the call by telephone will be available from approximately 8:00 p.m. EST on Tuesday, January 27, through 12:00 a.m. EST on Friday, February 6. To access the replay, dial (888) 203-1112 in the USA and Canada, and (719) 457-0820 in all other countries. Enter access code 8392984. A replay of the webcast of the call will be available for an extended period of time on the Financial Events page of the Company's website at www.mc.com/investor.

Use of Non-GAAP (Generally Accepted Accounting Principles) Financial Measures

In addition to reporting financial results in accordance with generally accepted accounting principles, or GAAP, the Company provides non-GAAP financial measures adjusted to exclude certain non-cash and other specified charges, which the Company believes are useful to help investors better understand its past financial performance and prospects for the future. However, the presentation of non-GAAP financial measures is not meant to be considered in isolation or as a substitute for financial information provided in accordance with GAAP. Management believes these non-GAAP financial measures assist in providing a more complete understanding of the Company's underlying operational results and trends, and management uses these measures along with their corresponding GAAP financial measures to manage the Company's business, to evaluate its performance compared to prior periods and the marketplace, and to establish operational goals. A reconciliation of GAAP to non-GAAP financial results discussed in this press release is contained in the attached exhibits.

Mercury Computer Systems, Inc. – Where Challenges Drive Innovation™

Mercury Computer Systems (www.mc.com, NASDAQ: MRCY) provides embedded computing systems and software that combine image, signal, and sensor processing with information management for data-intensive applications. With deep expertise in optimizing algorithms and software and in leveraging industry-standard technologies, we work closely with customers to architect comprehensive, purpose-built solutions that capture, process, and present data for defense electronics, homeland security, and other computationally challenging commercial markets. Our dedication to performance excellence and collaborative innovation continues a 25-year history in enabling customers to gain the competitive advantage they need to stay at the forefront of the markets they serve.

Mercury is based in Chelmsford, Massachusetts, and serves customers worldwide through a broad network of direct sales offices, subsidiaries, and distributors.

Forward-Looking Safe Harbor Statement

This press release contains certain forward-looking statements, as that term is defined in the Private Securities Litigation Reform Act of 1995, including those relating to fiscal 2009 business performance and beyond and the Company's plans for growth and improvement in profitability and cash flow. You can identify these statements by the use of the words "may," "will," "should," "plans," "expects," "anticipates," "continue," "estimate," "project," "intend," and similar expressions. These forward-looking statements 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 weakness in the Company's markets, effects of continued geopolitical unrest and regional conflicts, competition, changes in technology and methods of marketing, delays in completing 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, the timing of such funding, changes in the U.S. Government's interpretation of federal procurement rules and regulations, market acceptance of the Company's 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 retaining key customers. These risks and uncertainties also include such additional risk factors as are discussed in the Company's filings with the U.S. Securities and Exchange Commission, including its Annual Report on Form 10-K for the year ended June 30, 2008. The Company cautions readers not to place undue reliance upon any such forward-looking statements, which speak only as of the date made. The Company undertakes no obligation to update any forward-looking statement to reflect events or circumstances after

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Contact: Robert Hult, CFO, Mercury Computer Systems, Inc. 978-967-1990

Challenges Drive Innovation, Converged Sensor Network, CSN, and Ensemble are trademarks; Echotek, PowerBlock, RACE++, Visage, and Visage Imaging are registered trademarks of Mercury Computer Systems, Inc. Other product and company names mentioned may be trademarks and/or registered trademarks of their respective holders.

MERCURY COMPUTER SYSTEMS, INC. UNAUDITED CONSOLIDATED BALANCE SHEETS (in thousands)

	December 31, 2008	June 30, 2008
Assets		
Current assets:		
Cash and cash equivalents	\$ 37,958	\$ 59,045
Marketable securities	117,882	60,205
Accounts receivable, net	25,841	33,109
Inventory	21,319	24,694
Prepaid expenses and other current assets	4,932	8,752
Current assets of discontinued operations		38
Total current assets	207,932	185,843
Marketable securities	42,098	47,231
Option to sell auction rate securities at par	8,003	
Property and equipment, net	9,927	11,054
Goodwill	65,295	80,956
Acquired intangible assets, net	4,050	7,488
Other non-current assets	4,514	5,818
Non-current assets of discontinued operations		160
Total assets	\$ 341,819	\$338,550
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	\$ 10,078	\$ 15,112
Accrued expenses	7,543	9,817
Accrued compensation	12,159	11,781
Notes payable, borrowings under line of credit and current capital lease obligation	156,707	125,301
Income taxes payable	973	1,383
Deferred revenues and customer advances	11,611	16,240
Current liabilities of discontinued operations	2	124
Total current liabilities	199,073	179,758
Notes payable and non-current capital lease obligations	11	18
Accrued compensation		1,709
Deferred tax liabilities, net	285	285
Deferred gain on sale-leaseback	8,448	9,027
Other long-term liabilities	1,073	1,241
Total liabilities	208,890	192,038
Shareholders' equity:		
Common stock	222	220
Additional paid-in capital	104,365	100,268
Retained earnings	22,207	40,575
Accumulated other comprehensive income	6,135	5,449
Total shareholders' equity	132,929	146,512
onuccionecto equity	102,020	110,012

\$ 341,819

\$338,550

Total liabilities and shareholders' equity

MERCURY COMPUTER SYSTEMS, INC. UNAUDITED CONSOLIDATED STATEMENTS OF OPERATIONS (in thousands, except per share data)

		Three months ended December 31,		Six months ended December 31,	
	2008	2007	2008	2007	
Net revenues	\$ 50,725	\$51,301	\$ 99,824	\$99,309	
Cost of revenues (1)	20,479	20,110	41,296	36,900	
Gross profit	30,246	31,191	58,528	62,409	
Operating expenses:					
Selling, general and administrative (1)	18,178	21,726	33,988	40,835	
Research and development (1)	13,122	12,979	25,005	26,110	
Amortization of acquired intangible assets	774	1,827	2,148	3,626	
Impairment of goodwill and long-lived assets (2)	14,555	—	14,555	—	
Restructuring	253	192	811	247	
Total operating expenses	46,882	36,724	76,507	70,818	
Loss from operations	(16,636)	(5,533)	(17,979)	(8,409)	
Interest income	689	2,116	1,686	4,224	
Interest expense	(952)	(840)	(1,790)	(1,685)	
Other (expense) income, net	(181)	124	(29)	410	
Loss from continuing operations before income taxes	(17,080)	(4,133)	(18,112)	(5,460)	
Income tax expense		1,833	_	3,673	
Net loss from continuing operations	(17,080)	(5,966)	(18,112)	(9,133)	
Loss from discontinued operations, net of tax	_	(121)	(743)	(262)	
Gain on disposal of discontinued operations, net of tax	16	_	487	_	
Net loss	\$(17,064)	\$ (6,087)	\$(18,368)	\$ (9,395)	
Basic (loss) income per share:	`			· · · · · · · · · · · · · · · · · · ·	
Net loss from continuing operations	\$ (0.77)	\$ (0.27)	\$ (0.82)	\$ (0.43)	
Loss from discontinued operations	_	(0.01)	(0.03)	(0.01)	
Gain on disposal of discontinued operations	_		0.02		
Net loss per share	\$ (0.77)	\$ (0.28)	\$ (0.83)	\$ (0.44)	
Diluted (loss) income per share:		´			
Net loss from continuing operations	\$ (0.77)	\$ (0.27)	\$ (0.82)	\$ (0.43)	
Loss from discontinued operations	_	(0.01)	(0.03)	(0.01)	
Gain on disposal of discontinued operations	_		0.02		
Net loss per share	\$ (0.77)	\$ (0.28)	\$ (0.83)	\$ (0.44)	
Weighted average shares outstanding:					
Basic	22,121	21,607	22,065	21,541	
Diluted	22,121	21,607	22,065	21,541	
(1) Includes stock-based compensation expense, which was allocated as follows:					
Cost of revenues	\$ 145	\$ 185	\$ 214	\$ 283	
Selling, general and administrative	\$ 1,942	\$ 2,658	\$ 2,875	\$ 4,550	
Research and development	\$ 473	\$ 730	\$ 895	\$ 1,374	
(2) Impairment of goodwill and long-lived assets consists of:					
Impairment of goodwill	\$ 13,016	\$ —	\$ 13,016	\$ —	
Impairment of completed and licensed technology	\$ 19	\$ —	\$ 19	\$ —	
Impairment of customer relationships	\$ 1,520	\$ —	\$ 1,520	\$ —	

MERCURY COMPUTER SYSTEMS, INC. UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)

	Three months ended December 31,		Six months ended December 31,	
	2008	2007	2008	2007
Cash flows from operating activities:	* (1 = 0 = 0)		\$ (10 D CO)	¢ (0.00=)
Net loss	\$(17,064)	\$ (6,087)	\$(18,368)	\$ (9,395)
Depreciation and amortization	2,393	3,891	5,419	7,878
Impairment of goodwill and long-lived assets	14,555		14,555	
Other and non-cash items, net	2,430	5,532	3,061	7,970
Changes in operating assets and liabilities	420	(5,627)	703	(4,782)
Net cash provided by (used in) operating activities	2,734	(2,291)	5,370	1,671
Cash flows from investing activities:				
Sales (Purchases) of marketable securities, net	(57,737)	23,312	(57,628)	21,948
Purchases of property and equipment, net	(1,108)	(968)	(2,219)	(1,734)
Proceeds from liquidation of insurance policies	831	324	831	324
Acquisitions, net of cash acquired, and acquired intangible assets				(2,400)
Net cash (used in) provided by investing activities	(58,014)	22,668	(59,016)	18,138
Cash flows from financing activities:				
Proceeds from employee stock option and purchase plans	247	700	413	1,145
Repurchases of common stock	(58)	(71)	(297)	(349)
Borrowings under line of credit	31,410		31,410	
Payments of principal under notes payable and capital leases	(93)	(31)	(135)	(61)
Gross tax windfall from stock-based compensation	92	3	450	226
Net cash provided by financing activities	31,598	601	31,841	961
Effect of exchange rate changes on cash and cash equivalents	714	161	718	321
Net (decrease) increase in cash and cash equivalents	(22,968)	21,139	(21,087)	21,091
Cash and cash equivalents at beginning of period	60,926	51,245	59,045	51,293
Cash and cash equivalents at end of period	\$ 37,958	\$72,384	\$ 37,958	\$72,384

UNAUDITED SUPPLEMENTAL INFORMATION-RECONCILIATION OF GAAP TO NON-GAAP MEASURES

The Company provides non-GAAP operating income (losses), non-GAAP net income (losses) from continuing operations, and non-GAAP basic and diluted earnings (losses) from continuing operations per share as supplemental measures to GAAP regarding the Company's operational performance. These financial measures exclude the impact of certain items and, therefore, have not been calculated in accordance with GAAP. The adjustments to these non-GAAP financial measures, and the basis for such adjustments, are outlined below:

Stock-based compensation expense. The Company incurs expense related to stock-based compensation included in its GAAP presentation of cost of revenues, selling, general and administrative expense and research and development expense. Although stock-based compensation is an expense of the Company and viewed as a form of compensation, these expenses vary in amount from period to period, and are affected by market forces that are difficult to predict and are not within the control of management, such as the market price and volatility of the Company's shares, risk-free interest rates and the expected term and forfeiture rates of the awards. In accordance with SFAS No. 123R, stock-based compensation expense is calculated as of the grant date of each stock-based award, and generally cannot be changed or influenced by management after the grant date. Management believes that exclusion of these expenses allows comparisons of operating results that are consistent with periods prior to the Company's adoption of SFAS No. 123R, and allows comparisons of the Company's operating results to those of other companies, both public, private or foreign, that either are not required to adopt SFAS No. 123R, or disclose non-GAAP financial measures that exclude stock-based compensation.

Amortization of acquired intangible assets. The Company incurs amortization of intangibles related to various acquisitions it has made in recent years. These intangible assets are valued at the time of acquisition, are then amortized over a period of several years after the acquisition and generally cannot be changed or influenced by management after the acquisition. Management believes that exclusion of these expenses allows comparisons of operating results that are consistent over time for both our newly-acquired and long-held businesses.

Impairment of goodwill and long-lived assets. The Company incurs impairment charges for goodwill and long-lived assets based on events that may or may not be within the control of management. Management believes that these charges are outside the normal operations of the Company's business and are not indicative of ongoing operating results, and that exclusion of these expenses allows comparisons of operating results that are consistent across past, present and future periods.

Restructuring. The Company incurs restructuring charges in connection with management's decisions to undertake certain actions to realign operating expenses through workforce reductions and the closure of certain Company facilities, businesses and product lines. Management believes this item is outside the normal operations of the Company's business and is not indicative of ongoing operating results, and that exclusion of this expense allows comparisons of operating results that are consistent across past, present and future periods.

Tax valuation allowance. The Company records a tax valuation allowance as an expense item when it is "more likely than not" per FAS 109 criteria that the Company will not reap the benefits of the deferred tax assets (future deductible amounts derived from temporary differences between book and taxable income). Management believes these allowances are not indicative of ongoing operating results, and that exclusion of this expense item allows comparisons of operating results that are consistent across past, present and future periods.

Adjustments for related tax impact. Finally, for purposes of calculating non-GAAP net income (losses) from continuing operations and non-GAAP basic and diluted earnings (losses) from continuing operations per share, management adjusts the (benefit) provision for income taxes to tax effect the non-GAAP adjustments described above as they have a significant impact on the Company's income tax (benefit) provision.

Management excludes the above-described items and their related tax impact from its internal forecasts and models when establishing internal operating budgets, supplementing the financial results and forecasts reported to the Company's board of directors, determining the portion of bonus compensation for executive officers and other key employees based on operating performance, evaluating short-term and long-term operating trends in the Company's operations, and allocating resources to various initiatives and operational requirements. The Company believes that these non-GAAP financial adjustments are useful to investors because they allow investors to evaluate the effectiveness of the methodology and information used by management in its financial and operational decision-making.

These non-GAAP financial measures have not been prepared in accordance with GAAP, and should not be considered in isolation or as a substitute for financial information provided in accordance with GAAP. These non-GAAP financial measures may not be computed in the same manner as similarly titled measures used by other companies. The Company expects to continue to incur expenses similar to the non-GAAP financial adjustments described above, and investors should not infer from the Company's presentation of these non-GAAP financial measures that these costs are unusual, infrequent or non-recurring.

The following tables reconcile the non-GAAP financial measures to their most directly comparable GAAP financial measures.

(in thousands, except per share data)

	Three months ended December 31,		Six months ended December 31,	
	2008	2007	2008	2007
Loss from operations	\$(16,636)	\$(5,533)	\$(17,979)	\$(8,409)
Stock-based compensation	2,560	3,573	3,984	6,207
Amortization of acquired intangible assets	774	1,827	2,148	3,626
Impairment of goodwill	13,016	_	13,016	_
Impairment of customer relationships	1,520	—	1,520	
Impairment of completed and licensed technology	19	—	19	—
Restructuring	253	192	811	247
Non-GAAP income from operations	\$ 1,506	\$ 59	\$ 3,519	\$ 1,671

		Three months ended December 31,		Six months ended December 31,	
	2008	2007	2008	2007	
Net loss from continuing operations	\$(17,080)	\$ (5,966)	\$(18,112)	\$ (9,133)	
Stock-based compensation	2,560	3,573	3,984	6,207	
Amortization of acquired intangible assets	774	1,827	2,148	3,626	
Impairment of goodwill	13,016		13,016	—	
Impairment of customer relationships	1,520	—	1,520		
Impairment of completed and licensed technology	19	_	19		
Restructuring	253	192	811	247	
Tax valuation allowance and tax impact of excluding the above items	(361)	1,395	(1,151)	2,287	
Non-GAAP net income from continuing operations	\$ 701	\$ 1,021	\$ 2,235	\$ 3,234	
Non-GAAP net income from continuing operations per share:					
Basic	\$ 0.03	\$ 0.05	\$ 0.10	\$ 0.15	
Diluted	\$ 0.03	\$ 0.05	\$ 0.10	\$ 0.15	
Non-GAAP weighted average shares outstanding:					
Basic	22,121	21,607	22,065	21,541	
Diluted	22,353	22,043	22,318	21,903	

MERCURY COMPUTER SYSTEMS, INC. RECONCILIATION OF FORWARD-LOOKING GUIDANCE RANGE Quarter ending March 31, 2009

	 RANGE			
	Income (Loss) Per Share - Diluted		Income (Loss) Per Share - Diluted	
GAAP expectation	\$ (0.02)	\$	0.03	
Adjustment to exclude stock-based compensation	0.07		0.07	
Adjustment to exclude amortization of acquired intangible assets	0.03		0.03	
Adjustment for tax impact	 (0.03)		(0.04)	
Non-GAAP expectation	\$ 0.05	\$	0.09	