

MERCURY COMPUTER SYSTEMS INC

Form 424B5

February 07, 2011

Table of Contents

Filed pursuant to Rule 424(b)(5)

Registration No. 333-158847

The information contained in this preliminary prospectus supplement and the accompanying prospectus is not complete and may be changed. A registration statement relating to the securities has been declared effective by the Securities and Exchange Commission. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED FEBRUARY 7, 2011

PROSPECTUS SUPPLEMENT

(to Prospectus dated April 28, 2009)

4,000,000 Shares

Mercury Computer Systems, Inc.

Common Stock

We are offering 4,000,000 shares of our common stock. Our common stock is listed on The NASDAQ Global Select Market under the symbol MRCY. On February 3, 2011, the last reported sale price of our common stock on The NASDAQ Global Select Market was \$18.84 per share.

Investing in our common stock involves a high degree of risk. Please read **Risk Factors** beginning on page S-17 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	PER SHARE	TOTAL
Public Offering Price	\$	\$
Underwriting Discounts and Commissions	\$	\$
Proceeds to Company before expenses	\$	\$

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Delivery of the shares of common stock is expected to be made on or about _____, 2011. We have granted the underwriters an option for a period of 30 days to purchase an additional 600,000 shares of our common stock solely to cover over-allotments. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable by us will be \$ _____, and the total proceeds to us, before expenses, will be \$ _____.

Joint Book-Running Managers

Jefferies

Lazard Capital Markets

Co-Managers

Gleacher & Company

Merriman Capital

Morgan Keegan

Prospectus Supplement dated _____, 2011

Table of Contents

Table of Contents

Prospectus Supplement	
<u>About This Prospectus Supplement</u>	ii
<u>Prospectus Supplement Summary</u>	S-1
<u>Risk Factors</u>	S-17
<u>Cautionary Statement Regarding Forward-Looking Statements</u>	S-31
<u>Use of Proceeds</u>	S-32
<u>Capitalization</u>	S-33
<u>Dividend Policy</u>	S-34
<u>Price Range of Common Stock</u>	S-34
<u>Selected Consolidated Financial Information</u>	S-35
<u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	S-36
<u>Business</u>	S-62
<u>Management</u>	S-73
<u>Principal Stockholders</u>	S-78
<u>Related Party Transactions</u>	S-79
<u>Material United States Federal Income Tax Considerations For Non-United States Holders of Common Stock</u>	S-80
<u>Underwriting</u>	S-84
<u>Information Incorporated By Reference</u>	S-89
<u>Where You Can Find More Information</u>	S-90
<u>Experts</u>	S-90
<u>Legal Matters</u>	S-90
<u>Financial Statements</u>	F-1
Prospectus	
<u>About This Prospectus</u>	1
<u>About Mercury Computer Systems, Inc.</u>	1
<u>Risk Factors</u>	2
<u>Cautionary Statement Regarding Forward-Looking Statements</u>	2
<u>Ratios of Earnings to Fixed Charges</u>	4
<u>How We Intend To Use The Proceeds</u>	5
<u>Description of The Securities</u>	6
<u>Description of Debt Securities</u>	7
<u>Description of Preferred Stock</u>	21
<u>Description of Common Stock</u>	27
<u>Description of Warrants</u>	29
<u>Description of Units</u>	30
<u>How We Plan To Sell The Securities</u>	33
<u>Information Incorporated By Reference</u>	36
<u>Where You Can Find More Information</u>	37
<u>Experts</u>	37
<u>Legal Matters</u>	37

You should rely only on the information contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we have authorized for use in connection with this offering. We have not, and the underwriters have not, authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the

accompanying prospectus, and in any free writing prospectus that we have authorized for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus supplement entitled **Where You Can Find More Information** and **Information Incorporated by Reference**.

Table of Contents

About this Prospectus Supplement

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering of common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus dated April 28, 2009, including the documents incorporated by reference therein, provides more general information.

Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference that was filed with the Securities and Exchange Commission, or SEC, before the date of this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in the accompanying prospectus—the statement in the document having the later date modifies or supersedes the earlier statement.

Challenges Drive Innovation, Echocore, Echotek, Ensemble2, Powerstream, RACE++ and MultiCore Plus are registered trademarks, and Ensemble, Converged Sensor Network and Embedded Smart Processing are trademarks of Mercury Computer Systems, Inc. OpenVPX is a trademark of the VMEbus International Trade Association. IBM and PowerPC are registered trademarks of International Business Machine Corporation. All other trademarks and registered trademarks are the property of their respective holders, and are hereby acknowledged.

Unless the context otherwise requires, all references to Mercury, we, our, us or our Company in this prospectus supplement refer to Mercury Computer Systems, Inc., a Massachusetts corporation, and its consolidated subsidiaries. The term fiscal with respect to a year refers to the period from July 1 to June 30. For example, fiscal 2010 refers to the period from July 1, 2009 to June 30, 2010.

Table of Contents

Prospectus Supplement Summary

This summary does not contain all of the information that you should consider before investing in shares of our common stock. You should read this entire prospectus supplement carefully, including Risk Factors, our consolidated financial statements and related notes and other financial information appearing elsewhere in this prospectus supplement, before you decide to invest in shares of our common stock.

Our Company

We design, manufacture and market high-performance embedded, real-time digital signal and image processing systems and software for specialized defense and commercial 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, video, sonar and signals intelligence data. Our systems are also used in semiconductor imaging applications, including photomask generation and wafer inspection. We also provide radio frequency products for enhanced communications capabilities in military and commercial applications. Additionally, we entered the prime defense contracting market space in fiscal 2008 through the creation of our wholly-owned subsidiary, Mercury Federal Systems, Inc., to focus on reaching the federal intelligence and homeland security agencies.

Our products and solutions address mission-critical requirements within the defense industry for C4ISR (command, control, communications, computers, intelligence, surveillance and reconnaissance) and electronic warfare, or EW, systems and services, and target several markets including maritime defense, airborne reconnaissance, ballistic missile defense, ground mobile and force protection systems and tactical communications and network systems. Our products have been deployed in approximately 300 different programs with over 25 different prime defense contractors.

Our revenue, income from continuing operations and adjusted EBITDA for the six months ended December 31, 2010 were \$107.6 million, \$8.9 million and \$19.5 million, respectively. Our revenue, income from continuing operations and adjusted EBITDA for fiscal 2010 were \$199.8 million, \$28.1 million and \$29.9 million, respectively. See page S-14 of this prospectus supplement for a reconciliation of our adjusted EBITDA to income from continuing operations.

Our operations are organized in the following two business units:

- n *Advanced Computing Solutions, or ACS.* This business unit is focused on specialized, high performance signal processing solutions that encompass signal acquisition, digitalization, computing, storage and communications, targeted to key market segments, including defense, semiconductor, communications and other commercial computing. ACS's open system architecture solutions span the full range of embedded technologies from board level products to fully integrated sub-systems. Our products utilize leading-edge processor technologies architected to address highly data-intensive applications that include signal, sensor and image processing within environmentally constrained military and commercial applications. These products are highly optimized for size, weight and power, as well as for the performance and ruggedization requirements of our customers. Customized design and systems integration services extend our capabilities to tailor solutions to meet the specialized requirements of our customers. In fiscal 2010, ACS accounted for 95% of our total net revenues.
- n *Mercury Federal Systems, or MFS.* This business unit is focused on services and support work with the Department of Defense, or the DoD, and federal intelligence and homeland security agencies, including designing and engineering new intelligence, surveillance and reconnaissance, or ISR, capabilities to address present and emerging threats to U.S. forces. MFS is part of our long-term strategy to expand our software and services presence and pursue growth in platform-ready ISR sub-systems, particularly those with classified

Table of Contents

intellectual property. MFS offers a wide range of engineering architecture and design services that enable clients to deploy leading edge computing capabilities for ISR systems on an accelerated time cycle. This business unit enables us to combine classified intellectual property with the commercially developed application-ready sub-systems being developed by ACS, providing customers with platform-ready, affordable ISR sub-systems. In fiscal 2010, MFS accounted for 5% of our total net revenues.

Recent Developments

On January 12, 2011, we completed the acquisition of LNX Corporation, or LNX, a designer and manufacturer of next generation radio frequency receivers for signals intelligence, communications intelligence and electronic attack applications. Under the terms of the stock purchase agreement, we acquired LNX for an all-cash purchase price of \$31.0 million plus an earn-out of up to \$5.0 million payable upon the achievement of financial targets in calendar years 2011 and 2012. We believe the successful acquisition of LNX represents a significant step in our growth strategy and strongly augments our existing capabilities within our core markets. LNX enables us to capitalize on our existing program presence while providing new capabilities that will allow us to target additional opportunities. LNX's position as a key supplier to the prime contractor under the JCREW 3.3 program significantly increases our content on that platform. We believe that LNX's technology and market presence could also strengthen our MFS business.

Our History

Since 1981, we have operated as a provider of advanced embedded computing products primarily for end markets in the defense industry. Over time, we expanded our business to focus on a number of commercial end markets, including the biotechnology, embedded systems and professional services, visual imaging software and life sciences markets. While this strategy was designed to expand our target market, in the mid-2000's many of these new businesses required large investments, which significantly reduced our profitability, and we found ourselves spread across several disparate, unprofitable end-user segments.

In November 2007, Mark Aslett joined Mercury as chief executive officer in order to execute a strategy to refocus the business and return our Company to growth and profitability. Since then, Mr. Aslett and the current management team have successfully sold or shut down five non-core business units, returned the Company to profitability and growth and are transforming the Company into a best-of-breed provider of affordable, open architecture, commercially developed, application-ready and multi-intelligence sub-systems for our primary defense embedded computing end markets. Our refocused business combined with improved operations has led to improved overall financial performance, including:

- n increasing defense sales from \$111.3 million in fiscal 2007 to \$157.5 million in fiscal 2010 representing more than 40% growth, or 12% on a compounded annual rate, and increasing defense sales as percentage of revenue from 55% in fiscal 2007 to 79% in fiscal 2010;
 - n increasing income from continuing operations from a loss of \$28.9 million in fiscal 2007 to income of \$28.1 million in fiscal 2010 and increasing income from continuing operations from negative 14% for fiscal 2007 to 14% for fiscal 2010;
 - n improving our cash flow, with negative cash flow from operations of \$10.3 million in fiscal 2007 to positive cash flow from operations of \$15.7 million in fiscal 2010; and
 - n improving our balance sheet by reducing total indebtedness from \$125.0 million at June 30, 2007 to zero at December 31, 2010.
- During this period of improving financial performance, we continued to have success on programs such as Aegis, Global Hawk, Predator and Reaper and have reinvested in our business. We improved our position as a best-of-breed provider in our target markets, with major design wins including the Patriot missile program, the

Table of Contents

JCREW 3.3 program, which is the DoD's principal program to counter improvised explosive devices, or IEDs, and the Surface Electronic Warfare Improvement Program, or SEWIP, the EW improvement program for surface vessels to counteract a variety of emerging threats. In fiscal 2010, we grew organically, improved our working capital position and profitability metrics, and continued to refresh our product portfolio, and grew our services and systems integration business. We strengthened our position in our core ISR, EW and ballistic missile defense markets and believe our position in these markets will continue to grow. In fiscal 2011, we are continuing to strengthen and grow our core business by enhancing our current product portfolio and increasing our ISR domain expertise and capabilities. We continue to be successful on our existing programs and to pursue new design wins on high growth, high priority programs. In response to new and emerging threats, and the need for better intelligence in shorter time frames, we have developed new products and capabilities that, in conjunction with our customers, seek to address those areas of concern. We have also grown and anticipate growing further through acquisitions of performing companies that will complement, strengthen and grow our core business. As a result of these efforts, we believe we are well-positioned to capture existing and future growth opportunities in our end markets.

Our Market Opportunity

Our market opportunity is defined by the growing demand for advanced signal processing capabilities within the defense industry. Our primary market is the defense sector, specifically EW, ballistic missile defense and C4ISR; and commercial markets, which include semiconductor, commercial communications and other commercial computing markets. We believe we are well-positioned in growing, sustainable market segments of the defense sector that leverage advanced technology to improve warfighter capability and provide enhanced force protection capabilities.

We believe there are a number of evolving trends that are reshaping our target market and accordingly provide us with attractive growth opportunities, including:

The U.S. defense electronics market is large and growing. We have expanded our target market and are well-positioned from a DoD budget, program and platform perspective. DoD spending was \$693.3 billion in government fiscal year 2010, and is projected to grow to \$708.2 billion in government fiscal year 2011. The portion of this spending most relevant to our business is referred to as C4ISR spending. According to industry sources, the market for C4ISR within the DoD was approximately \$42.7 billion in government fiscal year 2010 and estimated to grow to approximately \$43.3 billion in government fiscal year 2011. C4ISR spending represents approximately 6% of the total DoD spending annually. We believe ISR, EW and ballistic missile defense have a high priority for future DoD spending. We have positioned ourselves well in these important areas and have won a position on many programs and platforms. We are a best-of-breed provider in the design and development of performance optimized electronic sub-systems for the ISR market. As a leader in this market, we often contract with multiple prime defense contractors as they bid for a particular project, thereby increasing our chance of a successful outcome.

The rapidly expanding demand for tactical ISR is leading to significant growth in sensor data, causing even greater demand for the capability of our products to process data onboard the platform. An increase in the prevalence and resolution of ISR sensors is generating significant growth in the associated data that needs to be turned into information for the warfighter in a timely manner. In addition, several factors are driving the defense and intelligence industries to demand greater capability to collect and process data onboard the aircraft, unmanned aerial vehicles, or UAVs, ships and other vehicles, which we refer to collectively as platforms. Each platform has limited bandwidth and cannot realistically transmit all the data that is collected onboard the platform, and this problem will increase over time as sensor generated data will continue to outstrip data communication capabilities. Looking forward, we believe our armed forces will need platforms that operate more autonomously and possibly in denied communication environments. In addition, the platforms themselves require increased persistence, and reducing the need to communicate data off the platform can help increase the ability of the platform to remain on or fly above the battlefield for extended periods. Finally, the scarcity and cost of human analysts, the demand for timely and relevant quality information and the increasing need to fuse data not only from multiple onboard sensors but also with intelligence generated from other platforms is causing even greater demand for the onboard processing capabilities our products provide.

Table of Contents

IEDs, rogue nations missile programs and threats from peer nations are causing greater investment in new EW and ballistic missile defense capabilities. Existing threats, such as IEDs in the form of roadside bombs, continue to be effective weapons of choice for insurgents. We have developed responses for these existing threats, including providing the core radio frequency and signal processing for the JCREW 3.3 counter-IED program. Our acquisition of LNX increased our content on the JCREW 3.3 program by over 40%, and this program has the potential to become the largest single program we have won in our history.

There are also new and emerging threats, such as peer nations developing stealth technologies, including stealth aircraft and new anti-ship ballistic missiles that potentially threaten the U.S. naval fleet. Finally, U.S. armed forces require enhanced signals intelligence and jamming capabilities. In response to these emerging threats, we have engaged in the following:

- n we provide the core radar processing on both the Aegis ballistic missile defense systems as well as the Patriot missile system, a ground-based missile defense platform;
- n in the fall of 2010, we were selected by Lockheed Martin to work on SEWIP, the surface EW improvement program designed to upgrade the Naval Surface Fleet EW capability and counteract a range of new peer threats;
- n we provide radar processing capabilities for the F-22 Raptor and F-35 Joint Strike Fighter, the latest generation of U.S. stealth-enabled fighters; and
- n to respond to the need for enhanced signals intelligence and jamming capabilities, we recently achieved a new design win for the next generation of the airborne signals intelligence payload, or ASIP, program.

The long-term DoD budget pressure is pushing more dollars toward upgrades of the electronic sub-systems on existing platforms, which may increase demand for our products. The DoD is moving from major new weapons systems developments to upgrades of the electronic sub-systems on existing platforms. These upgrades are expected to include more and improved sensors, signal processing, ISR algorithms, computing and communications. We believe that upgrades to provide new urgent war fighting capability, driven by combatant commanders, are occurring more rapidly than traditional prime defense contractors can easily react. We believe these trends will cause prime defense contractors to increasingly seek out our high performance, cost-effective open architecture products.

Defense procurement reform is causing the prime defense contractors to outsource more work to best-of-breed companies. The U.S. government is intensely focused on making systems more affordable and shortening their development time. As a company that provides commercial items to the defense industry, we believe our products are often more affordable than products with the same functionality developed by a prime defense contractor. Prime defense contractors are increasingly being asked to work under firm fixed price contract awards, which can pressure profit margins and increase program risk. Prime defense contractors are also being asked to produce systems much more rapidly than they have in the past. In addition, the U.S. government is demanding more use of commercial items and open system architectures. In this budget environment, there are fewer research and development dollars available with which prime defense contractors can invest early-on to differentiate their offerings while competing for new program awards or recompetes. As a result, prime defense contractors are generally trying to adjust their cost model from a high fixed cost model to a variable cost model. All of these factors are forcing the prime defense contractors to outsource more work to best-of-breed subcontractors, and we have transformed our business model over the last several years to address these long-term outsourcing needs and other trends.

Table of Contents

The chart below highlights the existing and emerging threats, the markets that have developed around those threats and how our solutions and products work within these markets.

Existing and			
Emerging Threats	Markets	DoD Programs	Our Solutions and Products
IEDs/Roadside Bombs	Electronic Warfare	JCREW 3.3 counter-IED	Signal processing and radio frequency receiver for prime defense contractor
Insurgents	C4ISR	Global Hawk, Predator and Reaper UAVs	Sensor processing for prime defense contractor
		Classified wide area airborne surveillance program	Sensor processing payload provider for prime defense contractor
	Electronic Warfare	ASIP Predator and Global Hawk UAVs	Sensor processing for prime defense contractor
Rogue Nation Missile Threat	Ballistic Missile Defense	Patriot missile	Radar processing for prime defense contractor
		AEGIS	
Peer Nation Stealth Fighter	C4ISR	F22 Raptor	Radar processing for prime defense contractor
		F35 Joint Strike Fighter	
Peer Nation Threats to U.S. Naval Surface Fleet	Electronic Warfare	SEWIP	Radio frequency receiver for prime defense contractor

Our Business Strategy

Our long-term strategy is to become a national asset and mission critical supplier to the defense and intelligence community and a leading provider of more affordable, open architecture, commercially developed, application-ready and multi-intelligence sub-systems.

We intend to achieve this objective through continued investment in advanced new products and solutions development in ACS in the fields of radio frequency, analog to digital and digital to analog conversion, advanced multi- and many-core signal processing systems, digital storage solutions as well as software defined communications capabilities. In fiscal 2008, we established our services and systems integration, or SSI, business to become a commercial outsourcing partner to the large prime defense contractors as they seek the more rapid design, development and delivery of affordable, best-of-breed, application-ready ISR sub-system solutions. We believe that services-led engagements in SSI may lead to long-term production sub-system annuity revenues that will continue long after the initial services are delivered. This business model positions us to be paid for work we would have previously expensed through our own income statement, to team concurrently with multiple prime defense contractors as they pursue new business with the government, and to engage with our customers much earlier in the design cycle and ahead of our competition. In fiscal 2008, we also established MFS – the ISR systems and technology services arm of Mercury. Our goal in MFS is to enhance the application-ready sub-systems from ACS with classified, domain-specific intellectual property that results in the delivery of platform-ready ISR sub-system solutions to our customers.

Table of Contents

Key elements of our strategy to accomplish our continued growth objectives include:

Achieve Design Wins on High Growth, High Priority Defense Programs. We believe that the most significant long-term, leading indicator in our business is the number and probable value of design wins awarded. We believe our advanced embedded signal processing solutions position us well going forward to capture design wins on key high growth, high priority defense programs within our targeted segments of the C4ISR market. Last year, we won designs in persistent ISR related signals intelligence payloads on UAVs and other aerial platforms. As a result of these successes, we now have significant content on all major UAV platforms, including Global Hawk, Predator, Broad Area Maritime Surveillance (BAMS), Reaper and a wide area airborne surveillance platform. Our ballistic missile defense wins include additional designs on the Aegis program, as well as continued foreign military sales for the Patriot missile program. In EW, we won key designs related to the JCREW 3.3 next-generation counter-IED program and the Navy's SEWIP program. Together, these wins represent a substantial opportunity for us in the years ahead.

Continue to Provide Excellent Performance on Our Existing Programs. The foundation for our growth remains our continued involvement with existing programs that are in late-stage development or currently in production, such as Aegis, the F-35 Joint Strike Fighter, Patriot missile, the F-16 aircraft and the Global Hawk, Predator and Reaper UAV programs. As part of a long-term reprioritization, the DoD is shifting its emphasis from major new weapons systems development to upgrades of existing programs and platforms. The upgrades on these programs focus on four key areas: improved sensors; more advanced signal processing and computing; enhanced ISR algorithms; and better communications on and off the platform. A key element of our strategy is to continue to provide high performance, cost-effective solutions on these programs and for these customers as a best-of-breed provider.

Pursue Strategic, Capability-Enhancing Acquisitions. We will continue to pursue selective strategic acquisitions of profitable growing businesses to augment both our ACS and MFS businesses using the following strategies: adding technologies or products that expand ACS's core business by competing more effectively in the ISR and EW markets; adding content and services to the defense and intelligence programs and platforms in which we currently participate or could participate in the future; and adding an ISR platform company that we can build around in our MFS business. Our recent acquisition of LNX supports all three of these objectives. Adding LNX to our business significantly strengthens our product portfolio in radio frequency and our capabilities in signals intelligence and EW. LNX's position as a key supplier to the prime defense contractor under the JCREW 3.3 program significantly increases our content on that platform. We believe that LNX's technology and market presence could also strengthen our MFS business.

Rapidly Scale MFS to Provide Fully Integrated Sub-systems for ISR Applications in Classified Programs. Through MFS, we intend to become a services-led, best-of-breed ISR sub-systems provider to our prime defense contractors for classified programs. Through the addition of key personnel, high-level security clearances and new defense and intelligence community customers, MFS will provide us access to critical classified government intellectual property that we can integrate with our existing ACS embedded computing solutions in order to provide fully integrated, platform ready ISR sub-systems. We believe MFS differentiates us from our competitors and places us in a stronger position to serve as the sub-systems architect for next-generation ISR programs and platforms.

Capitalize on Outsourcing and Other Dynamics in the Defense and Intelligence Industries. We are well-positioned to take advantage of several changing dynamics in the defense industry. Prime defense contractors are increasingly being awarded firm fixed price contracts. These contracts shift risk to the prime contractors, and as a result they are beginning to outsource increasing levels of sub-system development and production and other higher value program content. In addition, the U.S. government is shifting toward shorter program timelines, which require increased flexibility and responsiveness from prime contractors. Finally, more programs are moving to open systems architectures encompassing best-of-breed capabilities. We believe that these dynamics will result in prime contractors outsourcing increasing levels of program content to us as a best-of-breed provider of differentiated products, sub-systems engineering services and system integration.

Table of Contents

Leverage Our Research and Development Efforts to Anticipate Market Needs and Maintain our Technology Leadership. Our high performance, quick reaction ISR sub-systems and capabilities require increasingly more sophisticated hardware, software and middleware technology. In addition, as the defense and intelligence industries shift to ISR products with open systems architecture, we believe that our software expertise will become increasingly important and differentiate us from many of our competitors. We have substantially and will continue to refresh both our signal processing and multicomputer product lines while increasing our product development velocity. Faster product development velocity aligns us with the U.S. government's demands on the prime defense contractors for quick reaction capabilities. By shortening our product development times, we have been able to quickly launch the products we need to win new designs from the prime contractor community that will ultimately generate bookings and revenue for us. We intend to continue to utilize company and customer-funded research and development, as well as our acquisition strategy, to develop technologies, products and solutions that have significant potential for near-term and long-term value creation in both the defense and intelligence markets. We devote significant resources in order to anticipate the future requirements in our target defense and intelligence markets, including monitoring and pioneering advances in advanced embedded computing hardware and software, anticipating changes in U.S. government spending and procurement practices and leveraging insight from direct interaction with our customers.

Our Competitive Strengths

We believe the following competitive strengths will allow us to take advantage of the evolving trends in our industry and successfully pursue our business strategy:

Best-of-Breed Sub-System Solutions Provider for the C4ISR Market. Through our commercially developed, high performance embedded signal processing solutions, we address the challenges associated with the collection and processing of massive, continuous streams of data and dramatically shorten the time that it takes to give information to U.S. armed forces at the tactical edge. Our solutions are specifically designed for flexibility and interoperability, allowing our products to be easily integrated into larger system-level solutions. Our ability to integrate sub-system-level capabilities allows us to provide solutions that most effectively address the mission-critical challenges within the C4ISR market, including multi-intelligence data fusion and intelligence processing onboard the platform.

Diverse Mix of Stable, High Growth Programs Aligned with DoD Funding Priorities. Our products have been deployed in approximately 300 different programs with over 25 different prime contractors. We serve high priority markets for the DoD and foreign militaries, such as UAVs, ballistic missile defense, airborne reconnaissance, EW and jamming of IEDs, and have secured positions on mission-critical programs including Aegis, Predator and Reaper UAVs, F-35 Joint Strike Fighter, Patriot missile, JCREW 3.3 and SEWIP. In addition, we consistently leverage our technology and capability across 15 to 20 programs on an annual basis, providing significant operating leverage and cost savings.

Value-Added Sub-System Solution Provider for Prime Defense Contractors. The DoD's shift towards a firm fixed price contract procurement model is pushing prime defense contractors to pursue outsourcing opportunities to mitigate the increased program and financial risk. Our differentiated advanced signal processing solutions offer meaningful capabilities upgrades for our customers and enable the rapid, cost-effective deployment of systems to the end customer. We believe our open architecture sub-systems offer differentiated signal processing and data fusion capabilities that cannot be easily replicated. Our solutions minimize program risk, maximize application portability, and accelerate customers time to market.

MFS Enables the Delivery of Platform-Ready Solutions for Classified Programs. MFS was created in fiscal 2008 to enable us to directly pursue systems integration opportunities within the DoD and U.S. intelligence community. We believe the development work through MFS will provide us access to key classified government intellectual property, including critical intelligence and signal processing algorithms. We believe that MFS also provides us the opportunity to directly integrate this intellectual property onto our existing advanced computing solutions, enabling us to deliver platform-ready integrated ISR sub-systems that leverage our open architecture solutions and address key government technology and procurement concerns.

Table of Contents

Long-Standing Industry Relationships. We have established long-standing relationships with prime defense contractors, the U.S. government and other key organizations in the defense and intelligence industries over our 30 years in the defense electronics industry. Our customers include The Boeing Company, Lockheed Martin Corporation, Northrop Grumman Corporation, and Raytheon Company, many of whom have been valued and loyal customers for more than a decade. Over this period, we have become recognized for our ability to develop new technologies and meet stringent program requirements. Our demonstrated track record of delivering high-performance embedded signal processing solutions helped us to acquire new customers, such as ITT Electronic Systems, for whom we are providing the processing content on the JCREW 3.3 counter-IED program. We believe we are well-positioned to maintain these high-level customer engagements.

Proven Management Team. Over the past several years, our senior management team has refocused the Company on its economic core, developed a long-term compelling strategy for the defense market and restored profitability to the business. Having completed these critical steps to rebuild the Company and with a senior management team with significant experience in growing and scaling businesses, both through operating execution and acquisitions, we believe that we have demonstrated our operational capabilities and we are well-positioned for the next phase to transform, grow and scale our business.

Our Solutions and Products

Services and Systems Integration

As part of our strategy, we are continuing to invest in our SSI capability. Our SSI group is tasked with partnering with prime defense contractors to deliver sub-system level engineering expertise as well as ongoing systems integration services. Our SSI capability addresses our strategy to capitalize on the \$2.7 billion sub-system market within the defense embedded electronics market segment.

As the U.S. government mandates more outsourcing and open standards, a major shift is occurring within the prime defense contractors toward procurement of integrated sub-systems that enable quick application level porting through standards-based methodologies. We believe that our core expertise in this area is well aligned to capitalize on this trend. By leveraging our open architecture and high performance modular product set, we provide prime defense contractors with rapid deployment and quick reaction capabilities through our professional services and systems integration offerings. This results in less risk for the prime defense contractors, shortened development cycles, quicker solution deployment and reduced lifecycle costs.

Software Products

We actively design, market and sell complete software and middleware environments to accelerate development and execution of complex signal and image processing applications on a broad range of heterogeneous, multi-computing platforms. Our software suite is based on open standards and includes heterogeneous processor support with extensive high performance math libraries, multi-computing fabric support, net-centric and system management enabling services, extended operating system services, board support packages and development tools. This set of software and middleware provides customer algorithm level portability across rapidly evolving hardware processor types with math and input/output, or I/O, interfaces running at industry leading performance rates. In order to develop, test and integrate software ahead of hardware availability, we have invested in the notion of a Virtual Multi-Computer which we have branded Virtual ARS (Application Ready Sub-system). The Virtual ARS model allows for concurrent engineering internally and with customers to accelerate time to deployment, improve quality and reduce development costs. In some cases, these software products are bundled together with broader solutions including hardware and/or services, while in other cases they are licensed separately.

Our multi-computer software packages are marketed and licensed under the *MultiCore Plus*® registered trademark. These software products are a key differentiator for our systems business and represent only a modest amount of stand-alone revenue. We generally charge a user-based development license fee and bundle software run-time licenses with our hardware. We offer a standards-based software value proposition to our customers and provide this offer through several integrated software packages and service offerings.

Table of Contents

Hardware Products

We offer a broad family of products designed to meet the full range of requirements in compute-intensive, signal processing and image processing applications, multi-computer interconnect fabrics, sensor interfaces and command and control functions. To maintain a competitive advantage, we seek to leverage technology investments across multiple product lines. We are also influential in the industry-standard organizations associated with our market segments. For example, we started the OpenVPX initiative with the goal of providing customers with multi-vendor interoperable hardware built to well-defined system standards.

Our hardware products are typically compute-intensive and require extremely high inter-processor bandwidth and high I/O capacity. These systems often must also meet significant size, weight and power constraints for use in aircraft, UAVs, ships and other vehicles, and be ruggedized for use in highly demanding use environments. They are used in both commercial industrial applications, such as ground radar air traffic control, and advanced defense applications, including space-time adaptive processing, synthetic aperture radar, airborne early warning, command control communication and information systems, mission planning, image intelligence and signal intelligence systems. Our products transform the massive streams of digital data created in these applications into usable information in real time. The systems can scale from a few processors to thousands of processors.

To address the current challenges facing the war fighter, our government and prime defense contractors, we have developed a new product architecture that supports a more dynamic, iterative, spiral development process by leveraging open architecture standards and leading-edge commercial technologies and products. Configured and productized as integrated sub-systems, customers can rapidly and cost-effectively port and adapt their applications to changing threats.

Our open architecture is carried throughout our entire Ensemble product line from the very small form-factor sub-systems to the high-end, where ultimate processing is of paramount importance to the mission. Our commercially developed hardware and software product capabilities cover the entire ISR spectrum from acquisition and digitization of the signal, to processing of the signal, through the exploitation and dissemination of the information.

Company Information

Mercury Computer Systems, Inc. was incorporated in Massachusetts in 1981. Our common stock is listed on The NASDAQ Global Select Market under the symbol MRCY. Our executive offices are located at 201 Riverneck Road, Chelmsford, Massachusetts 01824 and our telephone number is (978) 256-1300. We maintain a website at www.mc.com. Information contained on our website does not constitute part of this prospectus supplement and the accompanying prospectus.

Common Stock offered by us	4,000,000 shares
----------------------------	------------------

Over-Allotment Option

Use of Proceeds

The NASDAQ Global Select Market Listing

Our common stock is listed on The NASDAQ Global Select Market under the symbol **MRCY**.

Risk Factors

You should read carefully **Risk Factors** in this prospectus supplement for a discussion of factors that you should consider before deciding to invest in shares of our common stock.

Outstanding Shares

The number of shares of our common stock to be outstanding immediately after this offering is based on 23,228,727 shares outstanding as of December 31, 2010, and excludes as of such date:

Table of Contents

Summary Consolidated Financial Information

The summary consolidated financial information, restated for discontinued operations, presented below as of and for the years ended June 30, 2010, 2009 and 2008 have been derived from and should be read together with, and are qualified in their entirety by reference to, our audited consolidated financial statements and the accompanying notes to those statements included or incorporated by reference in this prospectus supplement and the accompanying prospectus.

The summary consolidated financial information as of and for the six months ended December 31, 2010 and 2009 have been derived from our unaudited consolidated financial statements and the accompanying notes to those statements included or incorporated by reference in this prospectus supplement and the accompanying prospectus. The unaudited consolidated financial information includes, in the opinion of management, all adjustments, consisting of only normal recurring adjustments, that are necessary for a fair presentation of our financial position and results of operations for these periods.

The summary consolidated financial information presented for the twelve months ended December 31, 2010 has been derived from our audited and unaudited consolidated financial statements included or incorporated by reference in this prospectus supplement for each item presented by subtracting the item for the six months ended December 31, 2009 from the item for the year ended June 30, 2010, and adding the amount of the item for the six months ended December 31, 2010.

Our historical results for any prior period are not necessarily indicative of results to be expected in any future period, and our results of the six months and twelve months ended December 31, 2010 are not necessarily indicative of results to be expected for a full fiscal year or any future period.

This summary should be read in conjunction with the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus supplement.

Table of Contents

	Twelve Months Ended December 31, 2010	Six Months Ended December 31, 2010 (unaudited)	2009	Years Ended June 30,		
(In thousands, except per share data):				2010	2009	2008
STATEMENT OF OPERATIONS DATA:						
Net revenues	\$ 214,862	\$ 107,621	\$ 92,589	\$ 199,830	\$ 188,939	\$ 190,208
Cost of revenues	93,197	45,321	39,422	87,298	83,509	80,271
Gross margin	121,665	62,300	53,167	112,532	105,430	109,937
Operating expenses:						
Selling, general and administrative	54,906	28,216	24,829	51,519	51,185	63,084
Research and development	42,829	21,378	20,097	41,548	42,372	45,234
Amortization of acquired intangible assets	1,478	636	868	1,710	2,414	5,146
Impairment of goodwill and long-lived assets	61		150	211		561
Restructuring	(23)		254	231	1,712	4,454
Gain on sale of long-lived and other assets						(3,151)
Acquisition costs and other related expenses	307	307				
Total operating expenses	99,558	50,537	46,198	95,219	97,683	115,328
Income (loss) from operations	22,107	11,763	6,969	17,313	7,747	(5,391)
Interest income	303	13	242	532	2,059	6,489
Interest expense	(269)	(58)	(170)	(381)	(2,551)	(3,360)
Other income, net	1,613	920	535	1,228	763	1,535
Income (loss) from continuing operations before income taxes	23,754	12,638	7,576	18,692	8,018	(727)
Income tax expense (benefit)	(6,840)	3,773	1,236	(9,377)	109	3,710
Income (loss) from continuing operations	\$ 30,594	\$ 8,865	\$ 6,340	\$ 28,069	\$ 7,909	\$ (4,437)
PER SHARE DATA:						
Basic net earnings (loss) per share:						
Income (loss) from continuing operations	\$ 1.34	\$ 0.39	\$ 0.28	\$ 1.25	\$ 0.36	\$ (0.21)
Diluted net earnings (loss) per share:						
Income (loss) from continuing operations	\$ 1.30	\$ 0.37	\$ 0.28	\$ 1.22	\$ 0.35	\$ (0.21)
Weighted-average shares outstanding:						
Basic	22,844	23,021	22,450	22,559	22,150	21,639
Diluted	23,457	23,704	22,806	23,008	22,416	21,639
OTHER OPERATIONAL DATA:						
Adjusted EBITDA ⁽¹⁾	\$ 36,106	\$ 19,259	\$ 13,279	\$ 29,856	\$ 22,858	\$ 22,525
CASH FLOW DATA:						
Cash flows from operating activities	\$ 25,387	\$ 17,453	\$ 7,774	\$ 15,708	\$ 11,199	\$ 13,726

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Capital expenditures	(8,132)	(3,598)	(2,800)	(7,334)	(4,126)	(4,625)
Free cash flow ⁽²⁾	\$ 17,255	\$ 13,855	\$ 4,974	\$ 8,374	\$ 7,073	\$ 9,101

S-12

Table of Contents

(In thousands)	As of December 31, 2010 (Unaudited)	2010	As of June 30, 2009	2008
BALANCE SHEET DATA:				
Cash and cash equivalents	\$ 88,437	\$ 56,241	\$ 46,950	\$ 59,045
Short-term marketable securities and related receivables	\$	\$ 18,025	\$ 44,977	\$ 60,205
Total current assets	\$ 149,910	\$ 145,854	\$ 146,105	\$ 185,843
Long-term marketable securities	\$	\$	\$	\$ 47,231
Total assets	\$ 231,634	\$ 224,338	\$ 219,372	\$ 338,550
Short-term borrowings under line of credit	\$	\$	\$ 33,364	\$
Short-term notes payable	\$	\$	\$	\$ 125,000
Total current liabilities	\$ 28,853	\$ 34,605	\$ 65,389	\$ 179,758
Total non-current liabilities	\$ 9,878	\$ 10,621	\$ 8,946	\$ 12,280
Total shareholders' equity	\$ 192,903	\$ 179,112	\$ 145,037	\$ 146,512
Cash and marketable securities, net of debt ⁽³⁾	\$ 88,437	\$ 74,266	\$ 58,563	\$ 41,481
Adjusted working capital ⁽⁴⁾	\$ 38,338	\$ 38,790	\$ 31,135	\$ 30,515

- (1) In our quarterly earnings press releases and conference calls, we discuss a key measure that is not calculated according to generally accepted accounting principles, referred to as GAAP. Adjusted EBITDA, a non-GAAP financial measure, is defined as income (loss) from continuing operations before interest income and expense, income taxes, depreciation, amortization of acquired intangible assets, restructuring, impairment of long-lived assets, acquisition costs and other related expenses, and stock-based compensation costs. We use adjusted EBITDA as an important indicator of the operating performance of our business. We use adjusted EBITDA in internal forecasts and models when establishing internal operating budgets, supplementing the financial results and forecasts reported to our board of directors, determining a component of bonus compensation for executive officers and other key employees based on operating performance and evaluating short-term and long-term operating trends in our operations. We believe that adjusted EBITDA permits a comparative assessment of our operating performance relative to our performance based on our GAAP results, while isolating the effects of charges that may vary from period to period without direct correlation to underlying operating performance. We believe 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 our financial and operational decision-making. You are encouraged to evaluate these adjustments and the reasons we consider them appropriate for supplemental analysis.

Adjusted EBITDA is a non-GAAP financial measure and should not be considered in isolation or as a substitute for financial information provided in accordance with GAAP. Although adjusted EBITDA is not necessarily a measure of our ability to fund our cash needs, we understand that it is frequently used by securities analysts, investors and other interested parties as a measure of financial performance and to compare our performance with the performance of other companies that report adjusted EBITDA. This non-GAAP financial measure may not be computed in the same manner as similarly titled measures used by other companies. We expect to continue to incur expenses similar to the adjusted EBITDA financial adjustments described above, and investors should not infer from our presentation of this non-GAAP financial measure that these costs are unusual, infrequent or non-recurring.

Table of Contents

The following table reconciles adjusted EBITDA to income (loss) from continuing operations:

	Twelve Months Ended December 31, 2010	Six Months Ended December 31, 2010	2009	Years Ended June 30,		
(In thousands)				2010	2009	2008
Income (loss) from continuing operations	\$ 30,594	\$ 8,865	\$ 6,340	\$ 28,069	\$ 7,909	\$ (4,437)
Interest expense (income), net ^(a)	(34)	45	(72)	(151)	492	(3,129)
Income tax expense (benefit) ^(b)	(6,840)	3,773	1,236	(9,377)	109	3,710
Depreciation ^(c)	5,649	2,980	2,478	5,147	5,640	7,372
Amortization of acquired intangible assets ^(d)	1,478	636	868	1,710	2,414	5,146
Restructuring ^(e)	(23)		254	231	1,712	4,454
Impairment of long-lived assets ^(f)	61		150	211		561
Acquisition costs and other related expenses ^(g)	307	307				
Stock-based compensation costs ^(h)	4,914	2,923	2,025	4,016	4,582	8,848
Adjusted EBITDA	\$ 36,106	\$ 19,529	\$ 13,279	\$ 29,856	\$ 22,858	\$ 22,525

(a) The Company receives interest income on investments and incurs interest expense on loans, capital leases and other financed arrangements. These amounts may vary from period to period due to changes in investment and debt balances and interest rates driven by general market conditions or other circumstances outside of the normal course of our operations.

(b) The Company's GAAP tax expense can fluctuate materially from period to period due to tax adjustments that are not directly related to underlying operating performance. See Management's Discussion and Analysis of Financial Condition and Results of Operations Critical Accounting Policies and Significant Judgments and Estimates.

(c) The Company incurs depreciation expense related to capital assets purchased to support the ongoing operations of the business. These assets are recorded at purchase price and are depreciated using the straight-line method over the useful life of the asset. Purchases of such assets may vary significantly from period to period and without any correlation to underlying operating performance.

(d) The Company incurs amortization of intangibles related to various acquisitions it has made and license agreements it has entered into in recent years and license agreements. These intangible assets are valued at the time of acquisition, are amortized over a period of several years after acquisition and generally cannot be changed or influenced by management after acquisition.

(e)

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

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 these charges are outside the normal operations of the Company's business and are not indicative of ongoing operating results.

- (f) The Company incurs impairment charges of long-lived assets based on events that may or may not be within the control of management. Management believes these items are outside the normal operations of the Company's business and are not indicative of ongoing operating results.
- (g) The Company incurs costs associated with third-party professional services related to acquisition and potential acquisition opportunities, such as legal and accounting fees, and adjustments to acquisition-related items, such as contingent consideration, that are required to be marked to fair value each reporting period. Although we may incur such costs and other related charges and adjustments, it is not indicative that any transaction will be consummated. Management believes the exclusion of these items eliminates fluctuations in our selling, general, and administrative expenses related to acquisition activity which we cannot forecast.
- (h) 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

Table of Contents

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. Management believes that exclusion of these expenses allows comparisons of operating results that are consistent with periods prior to the Company's adoption of FASB ASC 718, and allows comparisons of the Company's operating results to those of other companies, both public, private or foreign, that disclose non-GAAP financial measures that exclude stock-based compensation.

- (2) Free cash flow, a non-GAAP measure for reporting cash flow, is defined as cash provided by operating activities less capital expenditures for property and equipment, which includes capitalized software development costs. We believe free cash flow provides investors with an important perspective on cash available for investments and acquisitions after making capital investments required to support ongoing business operations and long-term value creation. We believe that trends in our free cash flow are valuable indicators of our operating performance and liquidity.

Free cash flow is a non-GAAP financial measure and should not be considered in isolation or as a substitute for financial information provided in accordance with GAAP. This non-GAAP financial measure may not be computed in the same manner as similarly titled measures used by other companies. We expect to continue to incur expenditures similar to the free cash flow adjustment described above, and investors should not infer from the Company's presentation of this non-GAAP financial measure that these expenditures reflect all of the Company's obligations that require cash.

- (3) Cash and marketable securities, net of debt, a non-GAAP measure, is defined as cash and cash equivalents, short-term marketable securities and related receivables, and long-term marketable securities less total borrowings under line of credit and total notes payable. We believe cash and marketable securities, net of debt provides investors with an important view of our cash and investments available to fund the Company's operating activities after settlement of all our short- and long-term debt obligations.

Cash and marketable securities, net of debt is a non-GAAP financial measure and should not be considered in isolation or as a substitute for financial information provided in accordance with GAAP. This non-GAAP financial measure may not be computed in the same manner as similarly titled measures used by other companies.

The following table reconciles our cash and marketable securities, net of debt to cash and cash equivalents.

(In thousands)	As of December 31,		As of June 30,	
	2010	2010	2009	2008
Cash and cash equivalents	\$ 88,437	\$ 56,241	\$ 46,950	\$ 59,045
Short-term marketable securities and related receivables		18,025	44,977	60,205
Long-term marketable securities				47,231
Short-term borrowings under line of credit ^(a)			(33,364)	
Short-term notes payable ^(b)				(125,000)
Cash and marketable securities, net of debt	\$ 88,437	\$ 74,266	\$ 58,563	\$ 41,481

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

- (a) Short-term borrowings under line of credit represents the outstanding balance on our UBS line of credit secured by our auction rate securities.
- (b) Short-term notes payable consists of convertible senior notes payable which were retired by the Company on or before May 1, 2009.
- (4) Adjusted working capital, a non-GAAP measure, is defined as total accounts receivable, net of allowance for doubtful accounts and inventory less accounts payable and accrued expenses. We believe adjusted working capital provides investors with an important view of our operational efficiency and the fundamental capital requirements necessary to meet our obligations within the ordinary operating cycle.

S-15

Table of Contents

Adjusted working capital is a non-GAAP financial measure and should not be considered in isolation or as a substitute for financial information provided in accordance with GAAP. This non-GAAP financial measure may not be computed in the same manner as similarly titled measures used by other companies.

(In thousands)	As of December 31,	As of June 30,		
	2010	2010	2009	2008
Accounts receivable, net of allowance for doubtful accounts	\$ 28,919	\$ 36,726	\$ 25,549	\$ 28,634
Inventory.	20,634	17,622	16,805	24,202
Accounts payable	(5,723)	(10,533)	(3,770)	(13,647)
Accrued expenses	(5,492)	(5,025)	(7,449)	(8,674)
Adjusted working capital	\$ 38,338	\$ 38,790	\$ 31,135	\$ 30,515

Table of Contents

Risk Factors

An investment in our common stock involves a high degree of risk. Before deciding whether to invest in our common stock, you should consider carefully the risks described below, together with other information in this prospectus supplement, the accompanying prospectus, the information and documents incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering. If any of these risks actually occurs, our business, financial condition, results of operations or cash flow could be seriously harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment.

Risk Related to our Company

We depend heavily on defense electronics programs that incorporate our products, which may be only partially funded and are subject to potential termination and reductions and delays in government spending.

Sales of our embedded computer systems and related services, primarily as an indirect subcontractor or team member with prime defense contractors, and in some cases directly, to the U.S. government and its agencies, as well as foreign governments and agencies, accounted for approximately 75%, 79%, 77% and 69% of our total net revenues in the six months ended December 31, 2010, fiscal 2010, 2009, and 2008, respectively. Our computer systems are included in many different domestic and international programs. Over the lifetime of a program, the award of many different individual contracts and subcontracts may impact our products' requirements. The funding of U.S. government programs is subject to Congressional appropriations. Although multiple-year contracts may be planned in connection with major procurements, Congress generally appropriates funds on a fiscal year basis even though a program may continue for many years. Consequently, programs are often only partially funded initially, and additional funds are committed only as Congress makes further appropriations and prime contracts receive such funding. The reduction or delay in funding or termination of a government program in which we are involved would result in a loss of or delay in receiving anticipated future revenues attributable to that program and contracts or orders received. The U.S. government could reduce or terminate a prime contract under which we are a subcontractor or team member irrespective of the quality of our products or services. The termination of a program or the reduction in or failure to commit additional funds to a program in which we are involved could negatively impact our revenues and have a material adverse effect on our financial condition and results of operations. In addition, delays in funding of a program, or of the defense appropriation generally, could negatively impact our revenues and have a material adverse effect on our financial condition and results of operations for the period in which such revenues were originally anticipated.

Economic conditions could adversely affect our business, results of operations and financial condition.

The world's financial markets have experienced turmoil, characterized by reductions in available credit, increased costs of credit, volatility in security prices, rating downgrades of investments, and reduced valuations of securities. These events have materially and adversely impacted the availability of financing to a wide variety of businesses, including small businesses, and the resulting uncertainty has led to reductions in capital investments, overall spending levels, future product plans, and sales projections across many industries and markets. These trends could have a material adverse impact on our business, especially in the commercial markets in which we operate. These trends could also impact our financial condition and our ability to achieve targeted results of operations due to:

- n reduced and delayed demand for our products;
- n increased risk of order cancellations or delays;
- n downward pressure on the prices of our products;
- n greater difficulty in collecting accounts receivable; and
- n risks to our liquidity, including the possibility that we might not have access to our cash and short-term investments or to our line of credit when needed.

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Further, the funding of the defense programs that incorporate our products and services is subject to the overall U.S. government budget and appropriation decisions and processes, which are driven by numerous factors beyond our

S-17

Table of Contents

control, including geo-political events and macroeconomic conditions. Increased federal budget deficits could result in reduced Congressional appropriations for the defense programs that use our defense electronics products and services. We are unable to predict the likely duration and severity of adverse economic conditions in the United States and other countries, but the longer the duration or the greater the severity, the greater the risks we face in operating our business.

We face other risks and uncertainties associated with defense-related contracts, which may have a material adverse effect on our business.

Whether our contracts are directly with the U.S. government, a foreign government, or one of their respective agencies, or indirectly as a subcontractor or team member, our contracts and subcontracts are subject to special risks. For example:

- n Changes in government administration and national and international priorities, including developments in the geo-political environment such as the War on Terrorism, Operation Enduring Freedom, Operation Iraqi Freedom, and the threat of nuclear proliferation in North Korea and Iran, could have a significant impact on national or international defense spending priorities and the efficient handling of routine contractual matters. These changes could have a negative impact on our business in the future.
- n Our contracts with the U.S. and foreign governments and their prime defense contractors and subcontractors are subject to termination either upon default by us or at the convenience of the government or contractor if, among other reasons, the program itself has been terminated. Termination for convenience provisions generally entitle us to recover costs incurred, settlement expenses and profit on work completed prior to termination, but there can be no assurance in this regard.
- n Because we contract to supply goods and services to the U.S. and foreign governments and their prime and subcontractors, we compete for contracts in a competitive bidding process and, in the event we are awarded a contract, we are subject to protests by disappointed bidders of contract awards that can result in the reopening of the bidding process and changes in governmental policies or regulations and other political factors.
- n Consolidation among defense industry contractors has resulted in a few large contractors with increased bargaining power relative to us. The increased bargaining power of these contractors may adversely affect our ability to compete for contracts and, as a result, may adversely affect our business or results of operations in the future.
- n Our customers include U.S. government contractors who must comply with and are affected by laws and regulations relating to the formation, administration, and performance of U.S. government contracts. In addition, when our business units, such as MFS, contract with the U.S. government, they must comply with these laws and regulations, including the organizational conflict-of-interest regulations. A violation of these laws and regulations could result in the imposition of fines and penalties to us or our customers or the termination of our or their contracts with the U.S. government. As a result, there could be a delay in our receipt of orders from our customers, a termination of such orders, or a termination of contracts between our business units and the U.S. government.
- n We sell products to U.S. and international defense contractors and also directly to the U.S. government as a commercial supplier such that cost data is not supplied. To the extent that there are interpretations or changes in the Federal Acquisition Regulations regarding the qualifications necessary to be a commercial supplier, there could be a material adverse effect on our business and operating results. In addition, growth in our defense sales relative to our commercial sales could adversely impact our status as a commercial supplier, which could adversely affect our business and operating results.
- n We are subject to the Defense Federal Acquisition Regulations Supplement, referred to as DFARS, in connection with our defense work for the U.S. government and prime defense contractors. Amendments to the DFARS, such as the 2009 amendment to the DFARS specialty metals clause requiring that the specialty metals in specified items be melted or produced in the U.S. or other qualifying countries, may increase our costs for certain materials or result in supply-chain difficulties or production delays due to the limited availability of compliant

materials.

S-18

Table of Contents

- ⁿ We are subject to various U.S. federal export-control statutes and regulations which affect our business with, among others, international defense customers. In certain cases the export of our products and technical data to foreign persons, and the provision of technical services to foreign persons related to such products and technical data, may require licenses from the U.S. Department of Commerce or the U.S. Department of State. The time required to obtain these licenses, and the restrictions that may be contained in these licenses, may put us at a competitive disadvantage with respect to competing with international suppliers who are not subject to U.S. federal export control statutes and regulations. In addition, violations of these statutes and regulations can result in civil and, under certain circumstances, criminal liability as well as administrative penalties which could have a material adverse effect on our business and operating results.
- ⁿ Certain of our employees with appropriate security clearance may require access to classified information in connection with the performance of a U.S. government contract. We must comply with security requirements pursuant to the National Industrial Security Program Operating Manual, or NISPOM, and other U.S. government security protocols when accessing sensitive information. Failure to comply with the NISPOM or other security requirements may subject us to civil or criminal penalties, loss of access to sensitive information, loss of a U.S. government contract, or potentially debarment as a government contractor.

The loss of one or more of our largest customers, programs, or applications could adversely affect our results of operations.

We are dependent on a small number of customers for a large portion of our revenues. A significant decrease in the sales to or loss of any of our major customers would have a material adverse effect on our business and results of operations. In the first six months of fiscal 2011, Raytheon Company accounted for 20% of our total net revenues, Northrop Grumman Corporation accounted for 18% of our total net revenues and Lockheed Martin Corporation accounted for 14% of our total net revenues. In fiscal 2010, Raytheon Company accounted for 20% of our total net revenues and Lockheed Martin Corporation accounted for 17% of our total net revenues. In fiscal 2009, Lockheed Martin Corporation accounted for 14% of our total net revenues, Northrop Grumman Corporation accounted for 13% of our total net revenues, Argon ST, Inc. accounted for 13% of our total net revenues and Raytheon Company accounted for 11% of our total net revenues. In fiscal 2008, Argon ST, Inc. and Northrop Grumman Corporation each accounted for 13% of our total net revenues. The defense market is highly acquisitive, which could lead to further concentration in our largest customers. Customers in the defense market generally purchase our products in connection with government programs that have a limited duration, leading to fluctuating sales to any particular customer in this market from year to year. In addition, our revenues are largely dependent upon the ability of customers to develop and sell products that incorporate our products. No assurance can be given that our customers will not experience financial, technical or other difficulties that could adversely affect their operations and, in turn, our results of operations.

We are dependent on sales for radar applications for a large portion of our revenues. Sales related to radar applications accounted for 52%, 49%, 40%, and 33% of our total net revenues for the six months ended December 31, 2010, fiscal 2010, 2009, and 2008, respectively. While our radar sales relate to multiple different platforms and defense programs, our revenues are largely dependent upon our customers incorporating our products into radar applications. In fiscal 2010, the Aegis program accounted for 15% of our total net revenues. Loss of a significant radar program could adversely affect our results of operations.

If we are unable to respond adequately to our competition or to changing technology, we may lose existing customers and fail to win future business opportunities.

The markets for our products are highly competitive and are characterized by rapidly changing technology, frequent product performance improvements and evolving industry standards. Competitors may be able to offer more attractive pricing or develop products that could offer performance features that are superior to our products, resulting in reduced demand for our products. Due to the rapidly changing nature of technology, we may not become aware in advance of the emergence of new competitors into our markets. The emergence of new competitors into markets targeted by us could result in the loss of existing customers and may have a negative impact on our ability to win future business

Table of Contents

opportunities. In addition to adapting to rapidly changing technology, we must also develop a reputation as a best-of-breed technology provider. Competitors may be perceived in the market as being providers of open-source architectures versus Mercury as a closed-architecture company. Perceptions of Mercury as a high-cost provider, or as having stale technology could cause us to lose existing customers or fail to win new business.

With continued microprocessor evolution, low-end systems could become adequate to meet the requirements of an increased number of the lesser-demanding applications within our target markets. Workstation or blade center computer manufacturers and other low-end single-board computer, or new competitors, may attempt to penetrate the high-performance market for defense electronics systems, which could have a material adverse effect on our business. In addition, our customers provide products to markets that are subject to technological cycles. Any change in the demand for our products due to technological cycles in our customers' end markets could result in a decrease in our revenues.

Competition from existing or new companies could cause us to experience downward pressure on prices, fewer customer orders, reduced margins, the inability to take advantage of new business opportunities, and the loss of market share.

We compete in highly competitive industries, and our OEM customers generally extend the competitive pressures they face throughout their respective supply chains. Additionally, our markets are facing increasing industry consolidation, resulting in larger competitors who have more market share to put more downward pressure on prices and offer a more robust portfolio of products and services. We are subject to competition based upon product design, performance, pricing, quality and services. Our product performance, embedded systems engineering expertise, and product quality have been important factors in our growth. While we try to maintain competitive pricing on those products that are directly comparable to products manufactured by others, in many instances our products will conform to more exacting specifications and carry a higher price than analogous products. Many of our OEM customers and potential customers have the capacity to design and internally manufacture products that are similar to our products. We face competition from research and product development groups and the manufacturing operations of current and potential customers, who continually evaluate the benefits of internal research, product development, and manufacturing versus outsourcing. This competition could result in fewer customer orders and a loss of market share.

Our sales in the defense market could be adversely affected by the emergence of commodity-type products as acceptable substitutes for certain of our products and by uncertainty created by emerging changes in standards that may cause customers to delay purchases or seek alternative solutions.

Our computing products for the defense market are designed for operating under physical constraints such as limited space, weight, and electrical power. Furthermore, these products are often designed to be rugged, that is, to withstand enhanced environmental stress such as extended temperature range, shock, vibration, and exposure to sand or salt spray. Historically these requirements have often precluded the use of less expensive, readily available commodity-type systems typically found in more benign non-military settings. Factors that may increase the acceptability of commodity-type products in some defense platforms that we serve include improvements in the physical properties and durability of such alternative products, combined with the relaxation of physical and ruggedness requirements by the military due to either a reevaluation of those requirements or the installation of computing products in a more highly environmentally isolated setting. These developments could negatively impact our revenues and have a material adverse effect on our business and operating results.

If we fail to respond to commercial industry cycles in terms of our cost structure, manufacturing capacity and/or personnel need, our business could be seriously harmed.

The timing, length and severity of the up-and-down cycles in the semiconductor, telecommunications and other commercial industries are difficult to predict. This cyclical nature of the industries in which we operate affects our ability to accurately predict future revenue, and in some cases, future expense levels. In the current environment, our ability to accurately predict our future operating results is particularly low. During down cycles in our industry, the financial results of our customers may be negatively impacted, which could result not only in a decrease in orders but also a weakening of their financial condition that could impair our ability to recognize revenue or to collect on outstanding receivables. Furthermore, in the current credit environment, it may be more difficult for our customers to raise capital, whether debt

Table of Contents

or equity, to finance their purchases of capital equipment, including the products we sell. If our customers experience persistent difficulties in raising capital for equipment financing, we could experience a decrease in orders for our products. When cyclical fluctuations result in lower than expected revenue levels, operating results may be adversely affected and cost reduction measures may be necessary in order for us to remain competitive and financially sound. During periods of declining revenues, such as in the current environment, we must be in a position to adjust our cost and expense structure to reflect prevailing market conditions and to continue to motivate and retain our key employees. If we fail to respond, then our business could be seriously harmed. In addition, during periods of rapid growth, we must be able to increase manufacturing capacity and personnel to meet customer demand. We can provide no assurance that these objectives can be met in a timely manner in response to industry cycles. Each of these factors could adversely impact our operating results and financial condition.

Implementation of our growth strategy may not be successful, which could affect our ability to increase revenues.

Our growth strategy includes developing new products, adding new customers within our existing markets, and entering new markets, as well as identifying and integrating acquisitions. Our ability to compete in new markets will depend upon a number of factors including, among others:

- n our ability to create demand for products in new markets;
- n our ability to manage growth effectively;
- n our ability to respond to changes in our customers' businesses by updating existing products and introducing, in a timely fashion, new products which meet the needs of our customers;
- n our ability to develop a reputation as a best-of-breed technology provider;
- n the quality of our new products;
- n our ability to respond rapidly to technological change; and
- n our ability to successfully integrate any acquisitions that we make.

The failure to do any of the foregoing could have a material adverse effect on our business, financial condition and results of operations. In addition, we may face competition in these new markets from various companies that may have substantially greater research and development resources, marketing and financial resources, manufacturing capability and customer support organizations.

Future acquisitions or divestitures may adversely affect our financial condition.

As part of our strategy for growth, we may continue to explore acquisitions, divestitures, or strategic alliances, which may not be completed or may not be ultimately beneficial to us.

Acquisitions or divestitures may pose risks to our operations, including:

- n problems and increased costs in connection with the integration or divestiture of the personnel, operations, technologies, or products of the acquired or divested businesses;

- n unanticipated costs;
- n diversion of management's attention from our core business;
- n inability to make planned divestitures of businesses on favorable terms in a timely manner or at all;
- n adverse effects on business relationships with suppliers and customers and those of the acquired company;
- n acquired assets becoming impaired as a result of technical advancements or worse-than-expected performance by the acquired company;
- n entering markets in which we have no, or limited, prior experience; and
- n potential loss of key employees.

S-21

Table of Contents

In addition, in connection with any acquisitions or investments we could:

- n issue stock that would dilute our existing shareholders' ownership percentages;
 - n incur debt and assume liabilities;
 - n obtain financing on unfavorable terms;
 - n incur amortization expenses related to acquired intangible assets or incur large and immediate write-offs;
 - n incur large expenditures related to office closures of the acquired companies, including costs relating to the termination of employees and facility and leasehold improvement charges resulting from our having to vacate the acquired companies' premises; and
 - n reduce the cash that would otherwise be available to fund operations or for other purposes.
- The failure to successfully integrate any acquisitions or to make planned divestitures in an efficient or timely manner may negatively impact our financial condition and operating results.

We may be unable to obtain critical components from suppliers, which could disrupt or delay our ability to deliver products to our customers.

Several components used in our products are currently obtained from sole-source suppliers. We are dependent on key vendors like LSI Logic Corporation, Xilinx, Inc., and IBM Corporation for custom-designed ASICs and FPGAs, Freescale Semiconductor, Inc. and IBM Corporation for PowerPC microprocessors, Intel Corporation for our next generation processors, IBM Corporation for a specific SRAM, Hybricon Corporation and Motorola, Inc. for chassis and chassis components and Benchmark Electronics, Inc. for board assembly, test and integration. The semiconductor industry is experiencing a significant year over year increase in demand amid an uncertain macro economy which is limiting any investment in additional capacity. We believe this dynamic will result in increased lead-time for most classes of semiconductors and passive components and will continue to put pressure on component pricing where supply becomes constrained. Generally, suppliers may terminate their contracts with us without cause upon 30 days' notice and may cease offering their products upon 180 days' notice. If any of our sole-source suppliers limits or reduces the sale of these components, we may be unable to fulfill customer orders in a timely manner or at all. In addition, if these or other component suppliers, some of which are small companies, experienced financial difficulties or other problems that prevented them from supplying us with the necessary components, we could experience a loss of revenues due to our inability to fulfill orders. These sole-source and other suppliers are each subject to quality and performance issues, materials shortages, excess demand, reduction in capacity and other factors that may disrupt the flow of goods to us or to our customers, which would adversely affect our business and customer relationships. We have no guaranteed supply arrangements with our suppliers and there can be no assurance that these suppliers will continue to meet our requirements. If supply arrangements are interrupted, we may not be able to find another supplier on a timely or satisfactory basis. We may incur significant set-up costs and delays in manufacturing should it become necessary to replace any key vendors due to work stoppages, shipping delays, financial difficulties or other factors.

We may not be able to effectively manage our relationships with contract manufacturers.

We may not be able to effectively manage our relationship with contract manufacturers, and the contract manufacturers may not meet future requirements for timely delivery. We rely on contract manufacturers to build hardware sub-assemblies for our products in accordance with our specifications. During the normal course of business, we may provide demand forecasts to contract manufacturers up to five months prior to scheduled delivery of our products to customers. If we overestimate requirements, the contract manufacturers may assess cancellation penalties or we may be left with excess inventory, which may negatively impact our earnings. If we underestimate requirements, the contract manufacturers may have inadequate inventory, which could interrupt manufacturing of our products and result in delays in shipment to customers and revenue recognition. Contract manufacturers also build products for other companies, and they may not have sufficient quantities of inventory available or sufficient internal resources to fill our orders on a timely basis or at all.

S-22

Table of Contents

In addition, there have been a number of major acquisitions within the contract manufacturing industry in recent periods. While there has been no significant impact on our contract manufacturers to date, future acquisitions could potentially have an adverse effect on our working relationships with contract manufacturers. Moreover, we currently rely primarily on one contract manufacturer. The failure of this contract manufacturer to fill our orders on a timely basis or in accordance with our customers' specifications could result in a loss of revenues and damage to our reputation. We may not be able to replace this contract manufacturer in a timely manner or without significantly increasing our costs if such contract manufacturer were to experience financial difficulties or other problems that prevented it from fulfilling our order requirements.

We are exposed to risks associated with international operations and markets.

We market and sell products in international markets, and have established offices and subsidiaries in Europe and Japan. Revenues from international operations accounted for 6% of our total net revenues in the six months ended December 31, 2010, 10% of our total net revenues in fiscal 2010, 7% of our total net revenues in fiscal 2009, and 10% of our total net revenues in fiscal 2008. We also ship directly from our U.S. operations to international customers. There are inherent risks in transacting business internationally, including:

- n changes in applicable laws and regulatory requirements;

- n export and import restrictions;

- n export controls relating to technology;

- n tariffs and other trade barriers;

- n less favorable intellectual property laws;

- n difficulties in staffing and managing foreign operations;

- n longer payment cycles;

- n problems in collecting accounts receivable;

- n adverse economic conditions in foreign markets;

- n political instability;

- n fluctuations in currency exchange rates;

- n expatriation controls; and

n potential adverse tax consequences.

There can be no assurance that one or more of these factors will not have a material adverse effect on our future international activities and, consequently, on our business and results of operations.

We may be exposed to unfavorable currency exchange rate fluctuations, which may lead to lower operating margins, or may cause us to raise prices which could result in reduced revenues.

Currency exchange rate fluctuations could have an adverse effect on our net revenues and results of operations. Unfavorable currency fluctuations could require us to increase prices to foreign customers, which could result in lower net revenues from such customers. Alternatively, if we do not adjust the prices for our products in response to unfavorable currency fluctuations, our results of operations could be adversely affected. In addition, most sales made by our foreign subsidiaries are denominated in the currency of the country in which these products are sold, and the currency they receive in payment for such sales could be less valuable at the time of receipt as a result of exchange rate fluctuations. We do not currently hedge our foreign currency exchange rate exposure.

If we are unable to respond to technological developments and changing customer needs on a timely and cost-effective basis, our results of operations may be adversely affected.

Our future success will depend in part on our ability to enhance current products and to develop new products on a timely and cost-effective basis in order to respond to technological developments and changing customer needs.

S-23

Table of Contents

Defense customers, in particular, demand frequent technological improvements as a means of gaining military advantage. Military planners have historically funded significantly more design projects than actual deployments of new equipment, and those systems that are deployed tend to contain the components of the subcontractors selected to participate in the design process. In order to participate in the design of new defense electronics systems, we must demonstrate the ability to deliver superior technological performance on a timely and cost-effective basis. There can be no assurance that we will secure an adequate number of defense design wins in the future, that the equipment in which our products are intended to function will eventually be deployed in the field, or that our products will be included in such equipment if it eventually is deployed.

Customers in our commercial markets, including the semiconductor market, also seek technological improvements through product enhancements and new generations of products. OEMs historically have selected certain suppliers whose products have been included in the OEMs' machines for a significant portion of the products' life cycles. We may not be selected to participate in the future design of any medical or semiconductor equipment, or if selected, we may not generate any revenues for such design work.

The design-in process is typically lengthy and expensive, and there can be no assurance that we will be able to continue to meet the product specifications of OEM customers in a timely and adequate manner. In addition, any failure to anticipate or respond adequately to changes in technology and customer preferences, or any significant delay in product developments or introductions, could negatively impact our financial condition and results of operations, including the risk of inventory obsolescence. Because of the complexity of our products, we have experienced delays from time to time in completing products on a timely basis. If we are unable to design, develop or introduce competitive new products on a timely basis, our future operating results may be adversely affected.

Our products are complex, and undetected defects may increase our costs, harm our reputation with customers or lead to costly litigation.

Our products are extremely complex and must operate successfully with complex products of other vendors. Our products may contain undetected errors when first introduced or as we introduce product upgrades. The pressures we face to be the first to market new products or functionality increases the possibility that we will offer products in which we or our customers later discover problems. We have experienced new product and product upgrade errors in the past and expect similar problems in the future. These problems may cause us to incur significant costs to support our service contracts and other costs and divert the attention of personnel from our product development efforts. Undetected errors may adversely affect our product's ease of use and may create customer satisfaction issues. If we are unable to repair these problems in a timely manner, we may experience a loss of or delay in revenue and significant damage to our reputation and business prospects. Many of our customers rely upon our products for mission-critical applications. Because of this reliance, errors, defects or other performance problems in our products could result in significant financial and other damage to our customers. Our customers could attempt to recover those losses by pursuing products liability claims against us which, even if unsuccessful, would likely be time-consuming and costly to defend and could adversely affect our reputation.

We may be unsuccessful in protecting our intellectual property rights which could result in the loss of a competitive advantage.

Our ability to compete effectively against other companies in our industry depends, in part, on our ability to protect our current and future proprietary technology under patent, copyright, trademark, trade secret and unfair competition laws. We cannot assure that our means of protecting our proprietary rights in the United States or abroad will be adequate, or that others will not develop technologies similar or superior to our technology or design around our proprietary rights. In addition, we may incur substantial costs in attempting to protect our proprietary rights.

Also, despite the steps taken by us to protect our proprietary rights, it may be possible for unauthorized third parties to copy or reverse-engineer aspects of our products, develop similar technology independently or otherwise obtain and use information that we regard as proprietary and we may be unable to successfully identify or prosecute unauthorized uses of our technology. Furthermore, with respect to our issued patents and patent applications, we cannot assure you that any patents from any pending patent applications (or from any future patent applications) will be issued, that the scope

Table of Contents

of any patent protection will exclude competitors or provide competitive advantages to us, that any of our patents will be held valid if subsequently challenged or that others will not claim rights in or ownership of the patents (and patent applications) and other proprietary rights held by us.

If we become subject to intellectual property infringement claims, we could incur significant expenses and could be prevented from selling specific products.

We may become subject to claims that we infringe the intellectual property rights of others in the future. We cannot assure that, if made, these claims will not be successful. Any claim of infringement could cause us to incur substantial costs defending against the claim even if the claim is invalid, and could distract management from other business. Any judgment against us could require substantial payment in damages and could also include an injunction or other court order that could prevent us from offering certain products.

Our need for continued investment in research and development may increase expenses and reduce our profitability.

Our industry is characterized by the need for continued investment in research and development. If we fail to invest sufficiently in research and development, our products could become less attractive to potential customers and our business and financial condition could be materially and adversely affected. As a result of the need to maintain or increase spending levels in this area and the difficulty in reducing costs associated with research and development, our operating results could be materially harmed if our research and development efforts fail to result in new products or if revenues fall below expectations. In addition, as a result of our commitment to invest in research and development, spending levels of research and development expenses as a percentage of revenues may fluctuate in the future.

Our results of operations are subject to fluctuation from period to period and may not be an accurate indication of future performance.

We have experienced fluctuations in operating results in large part due to the sale of computer systems in relatively large dollar amounts to a relatively small number of customers. Customers specify delivery date requirements that coincide with their need for our products. 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. As such, we have not been able in the past to consistently predict when our customers will place orders and request shipments so that we cannot always accurately plan our manufacturing requirements. As a result, if orders and shipments differ from what we predict, we may incur additional expenses and build excess inventory, which may require additional reserves and allowances. Any significant change in our customers' purchasing patterns could have a material adverse effect on our operating results and reported earnings per share for a particular quarter. Thus, results of operations in any period should not be considered indicative of the results to be expected for any future period.

Our quarterly results may be subject to fluctuations resulting from a number of other factors, including:

- n delays in completion of internal product development projects;
- n delays in shipping computer systems and software programs;
- n delays in acceptance testing by customers;
- n a change in the mix of products sold to our served markets;
- n production delays due to quality problems with outsourced components;
- n inability to scale quick reaction capability products due to low product volume;

- n shortages and costs of components;
- n the timing of product line transitions;
- n declines in quarterly revenues from previous generations of products following announcement of replacement products containing more advanced technology;

S-25

Table of Contents

n potential impairment or restructuring charges; and

n changes in estimates of completion on fixed price service engagements.

In addition, from time to time, we have entered into contracts, referred to as development contracts, to engineer a specific solution based on modifications to standard products. Gross margins from development contract revenues are typically lower than gross margins from standard product revenues. We intend to continue to enter into development contracts and anticipate that the gross margins associated with development contract revenues will continue to be lower than gross margins from standard product sales.

Another factor contributing to fluctuations in our quarterly results is the fixed nature of expenditures on personnel, facilities and marketing programs. Expense levels for these programs are based, in significant part, on expectations of future revenues. If actual quarterly revenues are below management's expectations, our results of operations will likely be adversely affected.

Further, the preparation of financial statements in conformity with accounting principles generally accepted in the United States requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the dates of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates, and changes in estimates in subsequent periods could cause our results of operations to fluctuate.

Changes in regulations could materially adversely affect us.

Our business, results of operations, or financial condition could be materially adversely affected if laws, regulations, or standards relating to us or our products are newly implemented or changed. In addition, our compliance with existing regulations may have a material adverse impact on us. Under applicable federal securities laws, including the Sarbanes-Oxley Act of 2002, we are required to evaluate and determine the effectiveness of our internal control structure and procedures for financial reporting. Should we or our independent registered public accounting firm determine that we have material weaknesses in our internal controls, our results of operations or financial condition may be materially adversely affected or our stock price may decline.

Changes in generally accepted accounting principles may adversely affect us.

From time to time, the Financial Accounting Standards Board, or FASB, promulgates new accounting principles that could have a material adverse impact on our results of operations or financial condition.

We rely on the significant experience and specialized expertise of our senior management and engineering staff and must retain and attract qualified engineers and other highly skilled personnel in order to grow our business successfully.

Our performance is substantially dependent on the continued services and performance of our senior management and our highly qualified team of engineers, many of whom have numerous years of experience, specialized expertise in our business, and security clearances required for certain defense projects. If we are not successful in hiring and retaining highly qualified engineers, we may not be able to extend or maintain our engineering expertise, and our future product development efforts could be adversely affected. Competition for hiring these employees is intense, especially with regard to engineers with specialized skills and security clearances required for our business, and we may be unable to hire and retain enough engineers to implement our growth strategy.

Our future success also depends on our ability to identify, attract, hire, train, retain and motivate highly skilled managerial, operations, sales, marketing and customer service personnel. If we fail to attract, integrate and retain the necessary personnel, our ability to maintain and grow our business could suffer significantly. Further, stock price volatility and improvements in the economy could impact our ability to retain key personnel.

Table of Contents

If we experience a disaster or other business continuity problem, we may not be able to recover successfully, which could cause material financial loss, loss of human capital, regulatory actions, reputational harm, or legal liability.

If we experience a local or regional disaster or other business continuity problem, such as an earthquake, terrorist attack, pandemic or other natural or man-made disaster, our continued success will depend, in part, on the availability of our personnel, our office facilities, and the proper functioning of our computer, telecommunication and other related systems and operations. As we attempt to grow our operations, the potential for particular types of natural or man-made disasters, political, economic or infrastructure instabilities, or other country- or region-specific business continuity risks increases.

If we are unable to continue to obtain U.S. federal government authorization regarding the export of our products, or if current or future export laws limit or otherwise restrict our business, we could be prohibited from shipping our products to certain countries, which would harm our ability to generate revenue.

We must comply with U.S. laws regulating the export of our products and technology. In addition, we are required to obtain a license from the U.S. federal government to export certain of our products and technical data as well as to provide technical services to foreign persons related to such products and technical data. We cannot be sure of our ability to obtain any licenses required to export our products or to receive authorization from the U.S. federal government for international sales or domestic sales to foreign persons including transfers of technical data or the provision of technical services. Moreover, the export regimes and the governing policies applicable to our business are subject to change. We cannot assure you of the extent that such export authorizations will be available to us, if at all, in the future. If we cannot obtain required government approvals under applicable regulations in a timely manner or at all, we would be delayed or prevented from selling our products in international jurisdictions, which could adversely affect our business and financial results.

In addition, we must comply with the Foreign Corrupt Practices Act, or the FCPA. The FCPA generally prohibits U.S. companies and their intermediaries from making corrupt payments to foreign officials for the purpose of obtaining or keeping business or otherwise obtaining favorable treatment, and requires companies to maintain adequate record-keeping and internal accounting practices to accurately reflect the transactions of the company. Under the FCPA, U.S. companies may be held liable for actions taken by strategic or local partners or representatives. If we or our intermediaries fail to comply with the requirements of the FCPA, governmental authorities in the United States could seek to impose civil and criminal penalties, which could have a material adverse effect on our business, results of operations, financial conditions and cash flows.

If we suffer any data breaches involving the designs, schematics or source code for our products or other sensitive information, our business and financial results could be adversely affected.

We securely store our designs, schematics and source code for our products as they are created. A breach, whether physical, electronic or otherwise, of the systems on which this sensitive data is stored could lead to damage or piracy of our products. If we are subject to data security breaches, we may have a loss in sales or increased costs arising from the restoration or implementation of additional security measures, either of which could adversely affect our business and financial results. In addition, a security breach that involved classified information could subject us to civil or criminal penalties, loss of a government contract, loss of access to classified information, or debarment as a government contractor.

Our income tax provision and other tax liabilities may be insufficient if taxing authorities are successful in asserting tax positions that are contrary to our position. Increases in tax rates could impact our financial performance.

From time to time, we are audited by various federal, state and local authorities regarding income tax matters. Significant judgment is required to determine our provision for income taxes and our liabilities for federal, state, local and other taxes. Although we believe our approach to determining the appropriate tax treatment is supportable and in accordance with relevant authoritative guidance it is possible that the final tax authority will take a tax position that is materially different than that which is reflected in our income tax provision. Such differences could have an adverse effect on our

Table of Contents

income tax provision or benefit, in the reporting period in which such determination is made and, consequently, on our results of operations, financial position and/or cash flows for such period. Further, future increases in tax rates may adversely affect our financial results.

Provisions in our organizational documents and Massachusetts law and other actions we have taken could make it more difficult for a third party to acquire us.

Provisions of our charter and by-laws could have the effect of discouraging a third party from making a proposal to acquire our company and could prevent certain changes in control, even if some shareholders might consider the proposal to be in their best interest. These provisions include a classified board of directors, advance notice to our board of directors of shareholder proposals and director nominations, and limitations on the ability of shareholders to remove directors and to call shareholder meetings. In addition, we may issue shares of any class or series of preferred stock in the future without shareholder approval upon such terms as our board of directors may determine. The rights of holders of common stock will be subject to, and may be adversely affected by, the rights of the holders of any such class or series of preferred stock that may be issued.

We also are subject to the Massachusetts General Laws which, subject to certain exceptions, prohibit a Massachusetts corporation from engaging in a broad range of business combinations with any interested shareholder for a period of three years following the date that such shareholder becomes an interested shareholder. These provisions could discourage a third party from pursuing an acquisition of our company at a price considered attractive by many shareholders.

We have adopted a Shareholder Rights Plan that could make it more difficult for a third party to acquire, or could discourage a third party from acquiring, our company or a large block of our common stock. A third party that acquires 15% or more of our common stock (an acquiring person) could suffer substantial dilution of its ownership interest under the terms of the Shareholder Rights Plan through the issuance of common stock or common stock equivalents to all shareholders other than the acquiring person.

Our profits may decrease and/or we may incur significant unanticipated costs if we do not accurately estimate the costs of fixed-price engagements.

A significant number of our system integration projects are based on fixed-price contracts, rather than contracts in which payment to us is determined on a time and materials or other basis. Our failure to estimate accurately the resources and schedule required for a project, or our failure to complete our contractual obligations in a manner consistent with the project plan upon which our fixed-price contract was based, could adversely affect our overall profitability and could have a material adverse effect on our business, financial condition and results of operations. We are consistently entering into contracts for large projects that magnify this risk. We have been required to commit unanticipated additional resources to complete projects in the past, which has occasionally resulted in losses on those contracts. We will likely experience similar situations in the future. In addition, we may fix the price for some projects at an early stage of the project engagement, which could result in a fixed price that is too low. Therefore, any changes from our original estimates could adversely affect our business, financial condition and results of operations.

Risks Related to Our Common Stock and this Offering

The trading price of our common stock may continue to be volatile, which may adversely affect our business, and investors in our common stock may experience substantial losses.

Our stock price, like that of other technology companies, has been volatile. The stock market in general and technology companies in particular may continue to experience volatility. This volatility may or may not be related to our operating performance. Our operating results, from time to time, may be below the expectations of public market analysts and investors, which could have a material adverse effect on the market price of our common stock. In addition, the limited availability of credit in the financial markets and the continued threat of terrorism in the United States and abroad and the resulting military action and heightened security measures undertaken in response to threats may cause continued volatility in securities markets. When the market price of a stock has been volatile, holders of that stock will sometimes

Table of Contents

issue securities class action litigation against the company that issued the stock. If any shareholders were to issue a lawsuit, we could incur substantial costs defending the lawsuit. Also, the lawsuit could divert the time and attention of management.

Management will have broad discretion to the use of the proceeds from this offering.

We have not designated the amount of net proceeds we will receive from this offering for any particular purpose. Accordingly, our management will have broad discretion as to the application of these net proceeds and could use them for purposes other than those contemplated at the time of this offering. Our stockholders may not agree with the manner in which our management chooses to allocate and spend the net proceeds.

We have never paid dividends on our capital stock and we do not anticipate paying any dividends in the foreseeable future. Consequently, any gains from an investment in our common stock will likely depend on whether the price of our common stock increases.

We have not declared or paid cash dividends on any of our classes of capital stock to date and we currently intend to retain our future earnings, if any, to fund the development and growth of our business. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future. Furthermore, we may in the future become subject to contractual restrictions on, or prohibitions against, the payment of dividends. Consequently, in the foreseeable future, you will likely only experience a gain from your investment in our common stock if the price of our common stock increases. There is no guarantee that our common stock will appreciate in value or even maintain the price at which you purchased your shares, and you may not realize a return on your investment in our common stock.

If our internal controls over financial reporting are not considered effective, our business and stock price could be adversely affected.

Section 404 of the Sarbanes-Oxley Act of 2002 requires us to evaluate the effectiveness of our internal controls over financial reporting as of the end of each fiscal year, and to include a management report assessing the effectiveness of our internal controls over financial reporting in our annual report on Form 10-K for that fiscal year. Section 404 also requires our independent registered public accounting firm to attest to, and report on, management's assessment of our internal controls over financial reporting.

Our management, including our chief executive officer and principal financial officer, does not expect that our internal controls over financial reporting will prevent all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud involving a company have been, or will be, detected. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and we cannot assure you that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become ineffective because of changes in conditions or deterioration in the degree of compliance with policies or procedures. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected. We cannot assure you that we or our independent registered public accounting firm will not identify a material weakness in our internal controls in the future. A material weakness in our internal controls over financial reporting would require management and our independent registered public accounting firm to consider our internal controls as ineffective. If our internal controls over financial reporting are not considered effective, we may experience a loss of public confidence, which could have an adverse effect on our business and on the market price of our common stock.

If equity research analysts do not publish research or reports about our business or if they issue unfavorable commentary or downgrade our common stock, the price of our common stock could decline.

The trading market for our common stock relies in part on the research and reports that equity research analysts publish about us and our business. We do not control these analysts. The price of our common stock could decline if one or more equity analysts downgrade our common stock or if analysts issue other unfavorable commentary or cease publishing reports about us or our business.

Table of Contents

We may need additional capital and may not be able to raise funds on acceptable terms, if at all. In addition, any funding through the sale of additional common stock or other equity securities could result in additional dilution to our stockholders and any funding through indebtedness could restrict our operations.

We may require additional cash resources to finance our continued growth or other future developments, including any investments or acquisitions we may decide to pursue. The amount and timing of such additional financing needs will vary principally depending on the timing of new product and service launches, investments and/or acquisitions, and the amount of cash flow from our operations. If our resources are insufficient to satisfy our cash requirements, we may seek to sell additional equity or debt securities or obtain a credit facility. The sale of additional equity securities or securities convertible into our ordinary shares could result in additional dilution to our stockholders. The incurrence of indebtedness would result in increased debt service obligations and could result in operating and financing covenants that would restrict our operations.

Our ability to obtain additional capital on acceptable terms is subject to a variety of uncertainties, including:

- n investors' perception of, and demand for, securities of embedded computing systems and software providers;

- n conditions of the United States and other capital markets in which we may seek to raise funds; and

- n our future results of operations, financial condition and cash flows.

We cannot assure you that financing will be available in amounts or on terms acceptable to us, if at all. If we fail to raise additional funds, we may need to sell debt or additional equity securities or to reduce our growth to a level that can be supported by our cash flow. Without additional capital, we may not be able to:

- n further develop or enhance our customer base;

- n acquire necessary technologies, products or businesses;

- n expand operations in the United States and elsewhere;

- n hire, train and retain employees;

- n market our software solutions, services and products; or

- n respond to competitive pressures or unanticipated capital requirements.

Table of Contents

Cautionary Statement Regarding Forward-Looking Statements

This prospectus supplement, the accompanying prospectus, the documents we have filed with the SEC that are incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. These statements relate to future events or to our future operating or financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by the forward-looking statements. Forward-looking statements may include, but are not limited to, statements about:

- n our strategic plans;
- n the effects of the DoD's plans and expected expenditures;
- n our projected position in our target markets;
- n our ability to successfully grow acquisitively;
- n our business outlook; and
- n our future business and financial performance.

You should not rely on forward-looking statements because they involve known and unknown risks. These forward-looking statements can generally be identified as such because the context of the statements will include words such as anticipates, believes, can, continue, could, estimates, expects, intends, may, plans, potential, predicts, projects, should, will, would, and the negative of these words or statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss many of these risks in greater detail under the heading Risk Factors beginning on page S-17 of this prospectus supplement and in the documents incorporated by reference into this prospectus. Also, these forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement.

You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and any free writing prospectus that we have authorized for use in connection with this offering completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

You should rely only on the information contained, or incorporated by reference, in this prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering. We and the underwriters for this offering have not authorized anyone to provide you with different information. The common stock offered under this prospectus supplement and the accompanying prospectus is not being offered in any state or other jurisdiction where the offer is not permitted. You should not assume that the information contained in this prospectus supplement or the accompanying prospectus is accurate as of any date other than the date on the front of this prospectus supplement or the accompanying prospectus, as applicable, or that any information incorporated by reference in this prospectus supplement or the accompanying prospectus is accurate as of any date other than the date of the document so incorporated by reference. Unless required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future events or developments. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements.

Table of Contents

Use of Proceeds

We estimate that the net proceeds from this offering to be approximately \$71.6 million, at an assumed public offering price of \$18.84 per share, the last reported sale price of our common stock on The NASDAQ Global Select Market on February 3, 2011, after deducting the underwriting discounts and commissions and all our estimated fees and expenses related to this offering, or approximately \$82.3 million if the underwriters exercise their over-allotment option in full.

We intend to use the net proceeds from this offering for general corporate purposes, which may include the following:

n the acquisition of other companies or businesses;

n working capital; and

n capital expenditures.

As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses of the net proceeds from this offering. Accordingly, we will retain broad discretion over the use of such proceeds. Pending our use of the net proceeds from this offering, we intend to invest these net proceeds in short-term investment-grade, interest bearing securities.

A \$1.00 increase (decrease) in the assumed public offering price of \$18.84 per share would increase (decrease) the net proceeds to us from this offering by \$3.8 million, assuming the number of shares we are offering, as set forth on the cover page of this prospectus supplement, remains the same and after deducting the underwriting discounts and commissions and all our estimated fees and expenses related to this offering.

Table of Contents**Capitalization**

The following table sets forth our cash and cash equivalents and our capitalization as of December 31, 2010 on:

n an actual basis; and

n an as adjusted basis to give effect to the sale by us of shares of common stock in this offering at the assumed public offering price of \$18.84 per share (the last reported sale price of our common stock on The NASDAQ Global Select Market on February 3, 2011) and our receipt of the estimated net proceeds from that sale after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this table together with the sections of this prospectus supplement and the accompanying prospectus entitled "Selected Consolidated Financial Information," "Use of Proceeds," and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this prospectus supplement and the accompanying prospectus.

	As of December 31, 2010	
	Actual	As Adjusted
	(Unaudited)	
	(In thousands, except share and per share data)	
Cash and cash equivalents	\$ 88,437	\$ 160,029
Total debt ⁽¹⁾		
Stockholders' equity:		
Preferred stock, \$0.01 par value; 1,000,000 shares authorized and no shares issued or outstanding, actual and 1,000,000 shares authorized and no shares issued or outstanding, as adjusted		
Common stock, \$0.01 par value; 85,000,000 shares authorized and 23,228,727 shares issued and outstanding, actual and 85,000,000 shares authorized and 27,228,727 shares issued and outstanding, as adjusted	232	272
Additional paid-in capital	115,005	186,557
Accumulated other comprehensive income	1,182	1,182
Retained earnings	76,484	76,484
Total stockholders' equity	192,903	264,495
Total capitalization	\$ 192,903	\$ 264,495

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

- (1) We had no debt as of December 31, 2010. As of that date, we had \$35.0 million of credit available under our secured credit facility with Silicon Valley Bank. Our credit facility consists of a \$15.0 million revolving line of credit and a \$20.0 million term loan facility for acquisitions.

The table above excludes, as of December 31, 2010, the following shares:

- n 1,258,815 shares of outstanding unvested restricted stock awards under our equity incentive plan;
- n 2,489,180 shares of common stock issuable upon the exercise of outstanding stock options under our equity incentive plans, with a weighted average exercise price of \$13.86 per share;
- n 2,630,838 shares of common stock available for future grants under our equity incentive plan; and
- n 199,153 shares of common stock available for issuance under our employee stock purchase plan.

A \$1.00 increase (decrease) in the assumed public offering price of \$18.84 per share would increase (decrease) each of cash and cash equivalents, additional paid-in capital, total stockholders' equity and total capitalization by \$3.8 million, assuming the number of shares we are offering, as set forth on the cover page of this prospectus supplement, remains the same and after deducting the underwriting discounts and commissions and all our estimated fees and expenses related to this offering.

S-33

Table of Contents**Dividend Policy**

We have never declared or paid cash dividends on shares of our common stock. We currently intend to retain any earnings for future growth. Accordingly, we do not anticipate that any cash dividends will be declared or paid on our common stock in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements, restrictions contained in current or future financing instruments, provisions of applicable law and other factors the board deems relevant.

Price Range of Common Stock

The following table presents the high and low sales prices per share for our common stock during the indicated periods:

		High	Low
Fiscal 2011	Third quarter (through February 3, 2011)	\$ 19.94	\$ 17.84
	Second quarter	\$ 20.00	\$ 12.37
	First quarter	\$ 13.31	\$ 10.72
Fiscal 2010	Fourth quarter	\$ 14.17	\$ 10.35
	Third quarter	\$ 13.88	\$ 10.61
	Second quarter	\$ 11.56	\$ 8.85
	First quarter	\$ 11.78	\$ 9.04
Fiscal 2009	Fourth quarter	\$ 10.07	\$ 5.78
	Third quarter	\$ 7.13	\$ 4.44
	Second quarter	\$ 8.99	\$ 2.55
	First quarter	\$ 9.94	\$ 7.16

Table of Contents**Selected Consolidated Financial Information**

The selected consolidated financial information, restated for discontinued operations, presented below as of and for the years ended June 30, 2010, 2009 and 2008 have been derived from and should be read together with, and are qualified in their entirety by reference to, our audited consolidated financial statements and the accompanying notes to those statements included elsewhere in this prospectus supplement and the accompanying prospectus. The selected consolidated financial information, restated for discontinued operations, presented below for the fiscal year ended June 30, 2007 has been derived from our audited consolidated financial statements not included or incorporated by reference herein. The selected consolidated financial information, restated for discontinued operations, presented below as of and for the year ended June 30, 2006 has been derived from the Company's unaudited accounting records which have been prepared on a consistent basis with the other years presented. The selected consolidated financial information as of and for the six months ended December 31, 2010 and 2009 have been derived from our unaudited consolidated financial statements and the accompanying notes to those statements included elsewhere in this prospectus supplement and the accompanying prospectus.

The unaudited consolidated financial information includes, in the opinion of management, all adjustments, consisting of only normal recurring adjustments, that are necessary for a fair presentation of our financial position and results of operations for these periods. Our historical results for any prior period are not necessarily indicative of results to be expected in any future period, and our results for any interim period are not necessarily indicative of results to be expected for a full fiscal year.

The data should be read in conjunction with the section entitled "Managements Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus supplement.

(In thousands, except per share data)	Six Months Ended December 31,		Years Ended June 30,				
	2010	2009	2010	2009	2008	2007	2006
Statement of Operations Data:	(Unaudited)		(Audited)				
Net revenues	\$ 107,621	\$ 92,589	\$ 199,830	\$ 188,939	\$ 190,208	\$ 200,596	\$ 215,375
Income (loss) from operations	\$ 11,763	\$ 6,969	\$ 17,313	\$ 7,747	\$ (5,391)	\$ (26,058)	\$ (7,337)
Income (loss) from continuing operations	\$ 8,865	\$ 6,340	\$ 28,069	\$ 7,909	\$ (4,437)	\$ (28,899)	\$ (4,036)
Net earnings (loss) per share from continuing operations:							
Basic	\$ 0.39	\$ 0.28	\$ 1.25	\$ 0.36	\$ (0.21)	\$ (1.36)	\$ (0.19)
Diluted	\$ 0.37	\$ 0.28	\$ 1.22	\$ 0.35	\$ (0.21)	\$ (1.36)	\$ (0.19)

	As of December 31,		As of June 30,			
(In thousands)	2010	2010	2009	2008	2007	2006
Balance Sheet Data:						
Working capital	\$ 121,057	\$ 111,249	\$ 80,716	\$ 6,085	\$ 140,680	\$ 143,413

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Total assets	\$	231,634	\$ 224,338	\$ 219,372	\$ 338,550	\$ 360,265	\$ 386,446
Long-term obligations	\$	9,878	\$ 10,621	\$ 8,946	\$ 12,280	\$ 138,537	\$ 136,721
Total shareholders' equity	\$	192,903	\$ 179,112	\$ 145,037	\$ 146,512	\$ 168,657	\$ 191,989

S-35

Table of Contents

Management's Discussion and Analysis of Financial Condition and Results of Operations

Overview

We design, manufacture and market high-performance embedded, real-time digital signal and image processing systems and software for specialized defense and commercial 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, video, sonar and signals intelligence data. Our systems are also used in semiconductor imaging applications, including photomask generation and wafer inspection. We also provide radio frequency products for enhanced communications capabilities in military and commercial applications. Additionally, we entered the prime defense contracting market space in fiscal 2008 through the creation of our wholly-owned subsidiary, Mercury Federal Systems, Inc., to focus on reaching the federal intelligence and homeland security agencies.

Our products and solutions address mission-critical requirements within the defense industry for C4ISR (command, control, communications, computers, intelligence, surveillance and reconnaissance) and electronic warfare, or EW, systems and services, and target several markets including maritime defense, airborne reconnaissance, ballistic missile defense, ground mobile and force protection systems and tactical communications and network systems. Our products have been deployed in approximately 300 different programs with over 25 different prime defense contractors.

Our operations are organized in the following two business units:

- n *Advanced Computing Solutions, or ACS.* This business unit is focused on specialized, high performance signal processing solutions that encompass signal acquisition, digitalization, computing, storage and communications, targeted to key market segments, including defense, semiconductor, communications and other commercial computing. ACS's open system architecture solutions span the full range of embedded technologies from board level products to fully integrated sub-systems. Our products utilize leading-edge processor technologies architected to address highly data-intensive applications that include signal, sensor and image processing within environmentally constrained military and commercial applications. These products are highly optimized for size, weight and power, as well as for the performance and ruggedization requirements of our customers. Customized design and systems integration services extend our capabilities to tailor solutions to meet the specialized requirements of our customers. In fiscal 2010, ACS accounted for 95% of our total net revenues.
- n *Mercury Federal Systems, or MFS.* This business unit is focused on services and support work with the Department of Defense, or the DoD, and federal intelligence and homeland security agencies, including designing and engineering new intelligence, surveillance and reconnaissance, or ISR, capabilities to address present and emerging threats to U.S. forces. MFS is part of our long-term strategy to expand our software and services presence and pursue growth in platform-ready ISR sub-systems, particularly those with classified intellectual property. MFS offers a wide range of engineering architecture and design services that enable clients to deploy leading edge computing capabilities for ISR systems on an accelerated time cycle. This business unit enables us to combine classified intellectual property with the commercially developed application-ready sub-systems being developed by ACS, providing customers with platform-ready, affordable ISR sub-systems. In fiscal 2010, MFS accounted for 5% of our total net revenues.

Table of Contents

Recent Developments

On January 12, 2011, we completed the acquisition of LNX Corporation, or LNX, a designer and manufacturer of next generation radio frequency receivers for signals intelligence, communications intelligence and electronic attack applications. Under the terms of the stock purchase agreement, we acquired LNX for an all-cash purchase price of \$31.0 million plus an earn-out of up to \$5.0 million payable upon the achievement of financial targets in calendar years 2011 and 2012. We believe the successful acquisition of LNX represents a significant step in our growth strategy and strongly augments our existing capabilities within our core markets. LNX enables us to capitalize on our existing program presence while providing new capabilities that will allow us to target additional opportunities. LNX's position as a key supplier to the prime contractor under the JCREW 3.3 program significantly increases our content on that platform. We believe that LNX's technology and market presence could also strengthen our MFS business.

Non-GAAP Financial Measures

In our quarterly earnings press releases and conference calls, we discuss key measures that are not calculated according to generally accepted accounting principles, referred to as GAAP. One of these non-GAAP measures is adjusted EBITDA, which is defined as earnings from continuing operations before interest income and expense, income taxes, depreciation, amortization of acquired intangible assets, restructuring, impairment of long-lived assets, acquisition costs and other related expenses, and stock-based compensation costs. We use adjusted EBITDA as a principal indicator of the operating performance of our business. We use adjusted EBITDA in internal forecasts and models when establishing internal operating budgets, supplementing the financial results and forecasts reported to our 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 our operations, and allocating resources to various initiatives and operational requirements. We believe that adjusted EBITDA permits a comparative assessment of our operating performance, relative to our performance based on our GAAP results, while isolating the effects of charges that may vary from period to period without direct correlation to underlying operating performance. We believe 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 our financial and operational decision-making. We believe that trends in our adjusted EBITDA may be valuable indicators of our operating performance.

Adjusted EBITDA is a non-GAAP financial measure and should not be considered in isolation or as a substitute for financial information provided in accordance with GAAP. This non-GAAP financial measure may not be computed in the same manner as similarly titled measures used by other companies. We expect to continue to incur expenses similar to the adjusted EBITDA financial adjustments described above, and investors should not infer from our presentation of this non-GAAP financial measure that these costs are unusual, infrequent or non-recurring.

Another non-GAAP measure we use is free cash flow, which is a non-GAAP measure for reporting cash flow, which we define as cash provided by operating activities less capital expenditures for property and equipment, which includes capitalized software development costs. We believe free cash flow provides investors with an important perspective on cash available for investments and acquisitions after making capital investments required to support ongoing business operations and long-term value creation. We believe that trends in our free cash flow are valuable indicators of our operating performance and liquidity.

Free cash flow is a non-GAAP financial measure and should not be considered in isolation or as a substitute for financial information provided in accordance with GAAP. This non-GAAP financial measure may not be computed in the same manner as similarly titled measures used by other companies. We expect to continue to incur expenditures similar to the free cash flow adjustment described above, and investors should not infer from the Company's presentation of this non-GAAP financial measure that these expenditures reflect all of the Company's obligations that require cash.

Table of Contents

The following tables reconcile our adjusted EBITDA to the most directly comparable GAAP financial measure:

(In thousands)	Six Months Ended December 31,		Years Ended June 30,		
	2010	2009	2010	2009	2008
Net income (loss)	\$ 8,813	\$ 6,429	\$ 28,358	\$ (1,262)	\$ (35,413)
Income (loss) from discontinued operations, net of income taxes	(52)	15	215	\$ (20,328)	\$ (29,971)
Gain (loss) on sale of discontinued operations, net of income taxes		74	74	(11,157)	(1,005)
Income (loss) from continuing operations	8,865	6,340	28,069	7,909	(4,437)
Interest (income) expense, net	45	(72)	(151)	492	(3,129)
Income tax (benefit) expense	3,773	1,236	(9,377)	109	3,710
Depreciation	2,980	2,478	5,147	5,640	7,372
Amortization of acquired intangible assets	636	868	1,710	2,414	5,146
Restructuring		254	231	1,712	4,454
Impairment of long-lived assets		150	211		561
Acquisition costs and other related expenses	307				
Stock-based compensation cost	2,923	2,025	4,016	4,582	8,848
Adjusted EBITDA	\$ 19,529	\$ 13,279	\$ 29,856	\$ 22,858	\$ 22,525

Critical Accounting Policies and Significant Judgments and Estimates

We have identified the policies discussed below as critical to understanding our business and our results of operations. The impact and any associated risks related to these policies on our business operations are discussed throughout this Management's Discussion and Analysis of Financial Condition and Results of Operations where such policies affect our reported and expected financial results.

The preparation of consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent liabilities. On an ongoing basis, we evaluate our estimates and judgments, including those related to revenue recognition, contingencies, litigation, and the valuation of inventory, long-lived assets, goodwill, share-based compensation and income tax assets. We base our estimates on historical experience and on appropriate and customary assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Changes in our estimates from period to period, such as changes in assumptions underlying our estimates, may have a material impact on our financial condition or results of operations. Similarly, using the ends of the range of reasonably possible amounts that we determined in formulating our estimate, rather than the reported estimate, may have a material impact on our financial condition or results of operations. However, during the past three fiscal years, such changes in our estimates, including those related to accounts receivable and inventory valuation, and to warranty cost accruals, have not had a material impact on our overall financial performance or on any individual line item in our consolidated financial statements, with the exception of the change in estimate related to the valuation allowances on our deferred tax assets and our goodwill impairment analysis. Our valuation allowances on our deferred tax assets had a \$14.8 million benefit to our tax provision.

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

during fiscal 2010 and a \$6 million benefit to our tax provision during fiscal 2009 (see Note Q to the audited consolidated financial statements included elsewhere in this prospectus supplement). Our assumptions related to our goodwill valuation analysis did not result in an impairment in fiscal 2010 and fiscal 2009.

S-38

Table of Contents

Revenue Recognition

Revenue from system sales is recognized upon shipment provided that title and risk of loss have passed to the customer, there is persuasive evidence of an arrangement, the sales price is fixed or determinable, collection of the related receivable is reasonably assured and customer acceptance criteria, if any, have been successfully demonstrated.

Certain contracts with customers require us to perform tests of our products prior to shipment to ensure their performance complies with our published product specifications and, on occasion, with additional customer-requested specifications. In these cases, we conduct such tests and, if they are completed successfully, include a written confirmation with each order shipped. As a result, at the time of each product shipment, we believe that no further customer testing requirements exist and that there is no uncertainty of acceptance by our customer.

We enter into multiple-deliverable arrangements that may include a combination of hardware components, related integration or other services. These arrangements generally do not include any performance-, cancellation-, termination- or refund-type provisions. Total revenue recognized under multiple-deliverable revenue arrangements in fiscal 2010 was 53% of our net revenues. The majority of our multiple-deliverable revenue arrangements ship complete within the same quarter.

Effective July 1, 2009, we adopted FASB ASU No. 2009-13, *Multiple-Deliverable Revenue Arrangements*, which amends FASB ASC Topic 605, *Revenue Recognition*. FASB ASU 2009-13 eliminates the residual method of allocation for multiple-deliverable revenue arrangements and requires that arrangement consideration be allocated at the inception of an arrangement to all deliverables using the relative selling price method. FASB ASU 2009-13 also establishes a selling price hierarchy for determining the selling price of a deliverable, which includes: (1) vendor-specific objective evidence if available; (2) third-party evidence if vendor-specific objective evidence is not available; and (3) best estimated selling price if neither vendor-specific nor third-party evidence is available. Additionally, FASB ASU 2009-13 expands the disclosure requirements related to a vendor's multiple-deliverable revenue arrangements. This guidance is effective for us on July 1, 2010; however, we elected to early adopt, as permitted by the guidance. As such, we prospectively applied the provisions of FASB ASU 2009-13 to all revenue arrangements entered into or materially modified after July 1, 2009.

Per the provisions of FASB ASU 2009-13, we allocate arrangement consideration to each deliverable in an arrangement based on its relative selling price. We determine selling price using vendor specific objective evidence, referred to as VSOE, if it exists, otherwise third-party evidence, or TPE. If neither VSOE nor TPE of selling price exists for a unit of accounting, we use best estimated selling price, referred to as BESP. We generally expect that we will not be able to establish TPE due to the nature of the markets in which we compete, and, as such, we typically will determine selling price using VSOE or BESP.

VSOE is generally limited to the price charged when the same or similar product is sold separately or, if applicable, the stated substantive renewal rate in the agreement. If a product or service is seldom sold separately, it is unlikely that we can determine VSOE for the product or service. We define VSOE as a median price of recent standalone transactions that are priced within a narrow range, as defined by us.

TPE is determined based on the prices charged by competitors of ours for a similar deliverable when sold separately. As noted above, we typically are not able to use TPE as we are usually unable to obtain sufficient information on competitor pricing to substantiate TPE.

If we are unable to establish selling price using VSOE or TPE, and the order was received or materially modified after our FASB ASU 2009-13 implementation date of July 1, 2009, we will use BESP in our allocation of arrangement consideration. The objective of BESP is to determine the price at which we would transact if the product or service were sold by us on a standalone basis.

Our determination of BESP involves the consideration of several factors based on the specific facts and circumstances of each arrangement. Specifically, we consider the cost to produce the deliverable, the anticipated margin on that deliverable, the selling price and profit margin for similar parts, our ongoing pricing strategy and policies (as evident from the price list established and updated by us on a regular basis), the value of any enhancements that have been built into the deliverable and the characteristics of the varying markets in which the deliverable is sold.

Table of Contents

Since the adoption of FASB ASU 2009-13 on July 1, 2009, we have primarily used our ongoing pricing strategy and policies to determine BESP. We have corroborated the BESP determined by ongoing pricing strategy and policies with the cost to produce the deliverable, the anticipated margin on the deliverable, the selling price and profit margin for similar parts and the characteristics of the varying markets in which the deliverables are sold. We will determine BESP for deliverables in future agreements based on the specific facts and circumstances of each arrangement.

We plan to analyze the selling prices used in our allocation of arrangement consideration at a minimum on an annual basis. Selling prices will be analyzed on a more frequent basis if a significant change in our business necessitates a more timely analysis or if we experience significant variances in its selling prices.

Each deliverable within our multiple-deliverable revenue arrangements is accounted for as a separate unit of accounting under the guidance of FASB ASU 2009-13 if both of the following criteria are met: the delivered item or items have value to the customer on a standalone basis; and for an arrangement that includes a general right of return relative to the delivered item(s), delivery or performance of the undelivered item(s) is considered probable and substantially in our control. We consider a deliverable to have standalone value if the item is sold separately by us or another vendor or if the item could be resold by the customer. Further, our revenue arrangements generally do not include a general right of return relative to delivered products.

Deliverables not meeting the criteria for being a separate unit of accounting are combined with a deliverable that does meet that criterion. The appropriate allocation of arrangement consideration and recognition of revenue is then determined for the combined unit of accounting.

As a result of implementing FASB ASU 2009-13, we recognized \$25.1 million of revenue in fiscal 2010, which would have been deferred under the previous guidance for multiple element arrangements. We anticipate that the effect of the adoption of this guidance on subsequent periods will be primarily based on the substance of the arrangements entered into or materially modified after the July 1, 2009 adoption date and the timing of the shipments of the deliverables within these arrangements.

For transactions involving the licensing of standalone software products and of software that is not incidental to the product, we recognize revenue when there is persuasive evidence of an arrangement, delivery of the software has occurred, the price is fixed or determinable, and collection of the related receivable is reasonably assured. Our software products are generally not deemed essential to the functionality of any hardware system and do not require installation by us or significant modification or customization of the software. If fair value of maintenance agreements related to standalone software products is obtained, the fair value of the maintenance agreement is recognized as revenue ratably over the term of each maintenance agreement.

In electing to early adopt FASB ASU No. 2009-13, we also early adopted FASB ASU No. 2009-14, *Certain Revenue Arrangements That Include Software Elements*. FASB ASU 2009-14 amends the FASB ASC 985 to change the accounting model for revenue arrangements that include both tangible products and software elements, such that tangible products containing both software and non-software components that function together to deliver the tangible product's essential functionality are no longer within the scope of software revenue guidance. Since the adoption of FAS ASU 2009-14 on July 1, 2009, there were no multiple element arrangements containing software element that functioned together with a tangible element that were not delivered complete during Fiscal 2010. We will continue to monitor multiple element arrangements to determine if they are in scope of FASB ASU 2009-14, and when applicable will apply all relevant criteria per guidance.

For multiple-element arrangements entered into prior to July 1, 2009, in accordance with ASC 605-25, formerly Emerging Issues Task Force 00-21, *Revenue Arrangements with Multiple Deliverables*, we defer the greater of the fair value of any undelivered elements of the contract or the portion of the sales price that is not payable until the undelivered elements are delivered. For a delivered item to be considered a separate unit, the delivered item must have value to the customer on a standalone basis, there must be objective and reliable evidence of fair value of the undelivered items in the arrangement and the delivery or performance of the undelivered item must be considered probable and substantially within our control. Fair value is generally limited to the price charged when the same or similar element is sold separately or, if applicable, the stated substantive renewal rate in the agreement. For multiple-element arrangements for which we do not have fair value for the undelivered elements, we either defer all revenue until the order ships complete, or in the event when a maintenance arrangement is the only undelivered element, we generally amortize the fair value of maintenance agreement over the maintenance period.

Table of Contents

We also engage in long-term contracts for development, production and services activities which we account for consistent with ASC 605, consistent with FASB ASC 605-35, formerly Statement of Position 81-1, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts*, and other relevant revenue recognition accounting literature. We consider the nature of these contracts and the types of products and services provided when determining the proper accounting for a particular contract. Generally for fixed-price contracts, other than service-type contracts, revenue is recognized primarily under the percentage of completion method or, for certain short-term contracts, by the completed contract method. Revenue from service-type fixed-price contracts is recognized ratably over the contract period or by other appropriate input or output methods to measure service provided, and contract costs are expensed as incurred. We establish billing terms at the time project deliverables and milestones are agreed. Normal payment terms are thirty days from invoice date. Revenues recognized in excess of the amounts invoiced to clients are classified as unbilled revenues. The risk to us on a fixed-price contract is that if estimates to complete the contract change from one period to the next, profit levels will vary from period to period. For time and materials contracts, revenue reflects the number of direct labor hours expended in the performance of a contract multiplied by the contract billing rate, as well as reimbursement of other billable direct costs. The risk inherent in time and materials contracts is that actual costs may differ materially from negotiated billing rates in the contract, which would directly affect operating income. For all types of contracts, we recognize anticipated contract losses as soon as they become known and estimable. Out-of-pocket expenses that are reimbursable by the customer are included in revenue and cost of revenue.

The use of contract accounting requires significant judgment relative to estimating total contract revenues and costs, including assumptions relative to the length of time to complete the contract, the nature and complexity of the work to be performed, anticipated increases in wages and prices for subcontractor services and materials, and the availability of subcontractor services and materials. Our estimates are based upon the professional knowledge and experience of our engineers, program managers and other personnel, who review each long-term contract monthly to assess the contract's schedule, performance, technical matters and estimated cost at completion. Changes in estimates are applied on a retrospective basis, that is to say when adjustments in estimated contract costs are identified, such revisions may have the effect of adjusting in the current period the earnings applicable to performance in prior periods.

With very limited exceptions, we do not provide our customers with rights of product return, other than those related to warranty provisions that permit repair or replacement of defective goods. We accrue for anticipated warranty costs upon product shipment. If products sold do have a right of return, we defer revenue until the return period ends unless there is sufficient history to establish a reasonable returns reserve.

Revenues from product royalties are recognized upon invoice unless another reasonable and reliable method of recognition is more appropriate. Additionally, all revenues are reported net of government assessed taxes (e.g. sales taxes or value-added taxes).

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, we use consistent methodologies to evaluate inventory for net realizable value. We reduce the value of reported 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.

Goodwill and Acquired Intangible Assets

Acquired intangible assets result from our various business acquisitions (see Note K to the audited consolidated financial statements included elsewhere in this prospectus supplement) and certain licensed technologies, and consist of identifiable intangible assets, including completed technology, customer relationship, licensing agreements, and non-compete agreements. Acquired intangible assets are reported at cost, net of accumulated amortization and are either amortized on a straight-line basis over their estimated useful lives of up to seven years or over the period the economic benefits of the intangible asset are consumed or otherwise used up.

Table of Contents

Goodwill is the amount by which the cost of the acquired net assets in a business acquisition exceeded the fair values of the net identifiable assets on the date of purchase. Goodwill is not amortized in accordance with the requirements of FASB ASC 350 (formerly SFAS 142) *Intangibles Goodwill and Other*. Goodwill is assessed for impairment at least annually, on a reporting unit basis, or more frequently when events and circumstances occur indicating that the recorded goodwill may be impaired. We determine our reporting units in accordance with FASB ASC 350, by assessing whether discrete financial information is available and if management regularly reviews the operating results of that component. Following this assessment, we have determined that our reporting units are the same as our operating segments, which consist of the ACS and the MFS operating segments. As of June 30, 2010, the ACS operating segment was the only reporting unit that had a goodwill balance, and as such, the annual impairment analysis was performed for this reporting unit only. We test goodwill for impairment by evaluating the fair value of the reporting unit as compared to the book value. If the book value of a reporting unit exceeds its fair value, the implied fair value of goodwill is compared with the carrying amount of goodwill. If the carrying amount of goodwill exceeds the implied fair value, an impairment loss is recorded in an amount equal to that excess. See Note K and Note P to the audited consolidated financial statements included elsewhere in this prospectus supplement for additional information on our annual impairment analysis and results of impairment tests.

Long-Lived Assets

Long-lived assets primarily include property and equipment and acquired intangible assets. We periodically evaluate our long-lived assets for events and circumstances that indicate a potential impairment in accordance with FASB ASC 360 (formerly SFAS 144), *Property, Plant and Equipment*. We review long-lived assets for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable or that the useful lives of these assets are no longer appropriate. Each impairment test is based on a comparison of the estimated undiscounted cash flows of the asset as compared to the recorded value of the asset. If impairment is indicated, the asset is written down to its estimated fair value.

Product Warranty Accrual

Our product sales generally include a 12 month hardware warranty. At time of product shipment, we accrue for the estimated cost to repair or replace potentially defective products. Estimated warranty costs are based upon prior actual warranty costs for substantially similar products.

Income Taxes

We recognize deferred tax assets and liabilities for the expected future tax consequences of events that have been included in our consolidated financial statements. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial statement and tax basis of assets and liabilities using enacted tax rates for the year in which the differences are expected to reverse. We record a valuation allowance against net deferred tax assets if, based on the weight of available positive and negative evidence, including positive and negative trends in taxable income, business outlook, and utilization of tax attributes, it is more likely than not that some or all of the deferred tax assets will not be realized.

In the fourth quarter of fiscal 2010, our cumulative historical domestic operating results, including permanent items for the past 12 quarters, changed from negative to positive, driven by positive operating income before taxes in our fourth quarter. Based on these factors and our forecast of future taxable income, we believe it is more likely than not that we will be able to utilize our deferred tax assets in future periods.

We utilize a two-step approach to recognizing and measuring uncertain tax positions. First, the tax position is evaluated to determine the likelihood that it will be sustained upon external examination. If the tax position is deemed more likely than not to be sustained, the tax position is then assessed to determine the amount of benefit to recognize in the financial statements. The amount of benefit that may be recognized is the largest amount that has a greater than 50% likelihood of being realized upon ultimate settlement.

Table of Contents

Stock-Based Compensation

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 determination of fair value of stock-based payment awards is affected by our stock price as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to our expected stock price volatility over the term of the awards, the expected forfeiture rate of the awards and the actual and projected employee stock option exercise behaviors. Any changes in these assumptions may materially affect the estimated fair value of the stock-based award. We have elected under FASB ASC 718, *Compensation Stock Compensation (formerly SFAS 123R)*, to recognize the fair value of awards with pro-rata vesting on a straight-line basis over requisite service period.

In June 2009, the FASB issued Statement of Financial Accounting Standards, or SFAS, No. 168, The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles a replacement of FASB Statement No. 162, or FASB SFAS 168. SFAS 168 establishes the FASB Accounting Standards Codification TM, referred to as the Codification, as the source of authoritative U.S. GAAP for nongovernmental entities. The Codification does not change U.S. GAAP. Instead, it takes the thousands of individual pronouncements that currently comprise U.S. GAAP and reorganizes them into approximately 90 accounting Topics, and displays all Topics using a consistent structure. Contents in each Topic are further organized first by Subtopic, then Section and finally Paragraph. The Paragraph level is the only level that contains substantive content. Citing particular content in the Codification involves specifying the unique numeric path to the content through the Topic, Subtopic, Section and Paragraph structure. FASB suggests that all citations begin with FASB ASC, where ASC stands for Accounting Standards Codification. Changes to the ASC subsequent to June 30, 2009 are referred to as Accounting Standards Updates, or ASU.

In conjunction with the issuance of FASB SFAS 168, the FASB also issued ASU No. 2009-1, Topic 105 Generally Accepted Accounting Principles, or FASB ASU 2009-1, which includes FASB SFAS 168 in its entirety as a transition to the ASC. FASB ASU 2009-1 was effective for interim and annual periods ending after September 15, 2009 and had no impact on our financial position or results of operations but changed the referencing system for accounting standards.

Certain of the following pronouncements were issued prior to the issuance of the ASC and adoption of the ASUs. For such pronouncements, citations to the applicable Codification by Topic, Subtopic and Section are provided where applicable in addition to the original standard type and number.

Effective February 2010 we adopted FASB ASU 2010-09, Subsequent Events, or FASB ASU 2010-09, which updated FASB ASC 855, Subsequent Events, or FASB ASC 855. FASB ASU 2010-09 clarifies the date through which the Company is required to evaluate subsequent events. SEC filers will be required to evaluate subsequent events through the date that the financial statements are issued. Such adoption had no impact on our financial position or results of operations as it only amends required disclosures.

Effective January 1, 2010, we adopted FASB ASU 2010-06, Improving Disclosures about Fair Value Measurements, or FASB ASU 2010-06. FASB ASU 2010-06 requires additional disclosures about fair value measurements including transfers in and out of Levels 1 and 2 and a higher level of disaggregation for the different types of financial instruments. For the reconciliation of Level 3 fair value measurements, information about purchases, sales, issuances and settlements are presented separately. This standard is effective for interim and annual reporting periods beginning after December 15, 2009 with the exception of revised Level 3 disclosure requirements which are effective for interim and annual reporting periods beginning after December 15, 2010. Comparative disclosures are not required in the year of adoption. Such adoption did not have a material impact on our financial position or results of operation.

Effective July 1, 2009, we adopted FASB ASU No. 2009-13, Multiple-Deliverable Revenue Arrangements, or FASB ASU 2009-13, which amends FASB ASC 605, Revenue Recognition. FASB ASU 2009-13 amends the FASB ASC to eliminate the residual method of allocation for multiple-deliverable revenue arrangements, and requires that arrangement consideration be allocated at the inception of an arrangement to all deliverables using the relative selling price method. The ASU also establishes a selling price hierarchy for determining the selling price of a deliverable, which includes: (1) vendor-specific objective evidence if available; (2) third-party evidence if vendor-specific objective evidence is not available; and (3) best estimated selling price if neither vendor-specific nor third-party evidence is available.

Table of Contents

Additionally, FASB ASU 2009-13 expands the disclosure requirements related to a vendor's multiple-deliverable revenue arrangements. This guidance is effective for us on July 1, 2010; however we have elected to early adopt as permitted by the guidance. As such, we prospectively applied the provisions of FASB ASU 2009-13 to all revenue arrangements entered into or materially modified after July 1, 2009. See Note B to the consolidated financial statements for disclosures regarding the adoption of FASB ASU 2009-13.

Effective July 1, 2009, we adopted FASB ASU No. 2009-14, Certain Revenue Arrangements That Include Software Elements, or FASB ASU 2009-14, which amends FASB ASC 985, Software. FASB ASU 2009-14 amends the FASB ASC to change the accounting model for revenue arrangements that include both tangible products and software elements, such that tangible products containing both software and non-software components that function together to deliver the tangible product's essential functionality are no longer within the scope of software revenue guidance. This guidance is effective for us on July 1, 2010; however, we have elected to early adopt as permitted by the guidance. As such, we prospectively applied the provisions of FASB ASU 2009-14 to all revenue arrangements entered into or materially modified after July 1, 2009. Such adoption did not have a material impact on our financial position or results of operations.

Effective July 1, 2009, we adopted FASB ASC 805, Business Combinations, or FASB ASC 805, and formerly referred to as SFAS No. 141(R) and SFAS No. 141(R)-1. FASB ASC 805 requires the acquisition method to be applied to all transactions and other events in which an entity obtains control over one or more other businesses, requires the acquirer to recognize the fair value of all assets and liabilities acquired, even if less than one hundred percent ownership is acquired, and establishes the acquisition date fair value as measurement date for all assets and liabilities assumed. Additionally, FASB ASC 805-20 provides further guidance on the initial recognition and measurement, subsequent measurement and accounting, and discloses assets and liabilities arising from contingencies in business combinations. The guidance within FASB ASC 805 is effective prospectively for any acquisitions made after July 1, 2009. Since adoption, we have had no acquisitions and as such, the adoption did not have a material impact on our financial position or results of operations.

Effective July 1, 2009, we adopted FASB Staff Position, or FSP, No. 142-3, Determination of the Useful Life of Intangible Assets, which was primarily codified into FASB ASC 350 Intangibles—Goodwill and Other, or FASB ASC 350, in the FASB ASC. This guidance amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset and requires enhanced related disclosures. FASB ASC 350 improves the consistency between the useful life of a recognized intangible asset and the period of expected cash flows used to measure the fair value of the asset. This guidance must be applied prospectively to all intangible assets acquired as of and subsequent to fiscal years beginning after December 15, 2008. This guidance became effective for the company on July 1, 2009. Although future transactions involving intangible assets may be affected by this guidance, it did not impact our financial position or results of operations as we did not acquire any intangible assets during fiscal 2010.

Effective July 1, 2009, we adopted FSP No. 107-1 and APB Opinion 28-1, Interim Disclosures about Fair Value of Financial Instruments, which is now part of FASB ASC 825, Financial Instruments, or FASB ASC 825. FASB ASC 825 requires disclosures about fair value of financial instruments for interim and annual reporting periods and is effective for interim reporting periods ending after June 15, 2009. Such adoption did not have a material impact on our financial position or results of operations.

We adopted FASB ASC 820, Fair Value Measurements and Disclosures, or FASB ASC 820, formerly SFAS No. 157, on July 1, 2008 for financial assets and liabilities that are re-measured and reported at fair value at each reporting period. Effective July 1, 2009, we adopted the provisions of FASB ASC 820 for fair value measurements of nonfinancial assets and nonfinancial liabilities that are recognized or disclosed at fair value in the financial statements on a nonrecurring basis. Such adoption did not have a material impact on our financial position or results of operations.

Effective August 2009, we adopted FASB ASU No. 2009-05, Measuring Liabilities at Fair Value, or FASB ASU 2009-05, which amends FASB ASC 820, Fair Value Measurements and Disclosures. FASB ASU 2009-05 provides clarification and guidance regarding how to value a liability when a quoted price in an active market is not available for that liability. The changes to the FASB ASC as a result of this update were effective for us on October 1, 2009. Such adoption did not have a material impact on our financial position or results of operations.

Table of Contents

Business Developments

Six Months Ended December 31, 2010

On June 30, 2010, we exercised our right to sell the remaining \$18.0 million auction rate securities, or ARS, balance to UBS at par value. The transaction settled on July 1, 2010 when we received \$18.0 million in cash.

Fiscal 2010

On June 28, 2010, we repaid the remaining \$11.3 million principal balance on our line of credit with UBS. As of June 30, 2010, there were no borrowings against this line of credit.

On July 1, 2009, we had \$50.1 million par value of ARS. During fiscal 2010, UBS called \$32.1 million of our ARS at par, reducing our balance on June 30, 2010 to \$18.0 million.

Fiscal 2009

In September 2008, we completed an asset sale of our former Biotech business for a \$0.1 million cash payment, which was received in the second quarter of fiscal 2009, and \$0.3 million of preferred shares in the acquiring entity. The Biotech business was previously reported in the results of the MFS operating segment. The accounting for this sale and Biotech's operating results were included in discontinued operations in fiscal 2009, and prior period results have been reclassified to reflect the discontinuation and sale (see Note P to the audited consolidated financial statements included elsewhere in this prospectus supplement).

In January 2009, we completed the sale of our former Visage Imaging, or VI, operating segment for gross consideration of \$3.0 million in cash. Of the proceeds, a total of \$1.1 million was held back for general indemnification purposes and employee termination payments to be incurred by the buyer. The sale resulted in a gain of \$4.2 million on disposal of the discontinued operation. The gain was primarily comprised of cash proceeds of \$1.0 million, net of transaction costs, and recognition of a foreign currency translation gain of \$3.9 million associated with the VI business, offset by net assets of the business of \$0.8 million. The accounting for this sale and the VI operating segment's operating results were included in discontinued operations in fiscal 2009, and prior period results have been reclassified to reflect the discontinuation and sale (see Note P to the audited consolidated financial statements included elsewhere in this prospectus supplement).

In February 2009, we repurchased \$119.7 million (face value) aggregate principal amount of our 2% Convertible Senior Notes, or the Notes, due in 2024 from the holder of such Notes. We repurchased the Notes for aggregate consideration equal to the principal amount of the Notes plus accrued interest. We paid the consideration for the Notes from a combination of cash on hand and the proceeds from the sale of certain U.S. Treasury securities held by us. We originally sold \$125.0 million aggregate principal amount of the Notes in April 2004 (see Note L to the audited consolidated financial statements included elsewhere in this prospectus supplement).

In May 2009, we repurchased the remaining aggregate principal amount outstanding of \$5.3 million (face value) of our Notes from the holders of such Notes. We repurchased the Notes for aggregate consideration equal to the principal amount of the Notes plus accrued interest. We paid the consideration for the Notes from cash on hand. We have no further obligations under the Notes, which we cancelled upon repurchase (see Note L to the audited consolidated financial statements included elsewhere in this prospectus supplement).

In June 2009, we closed on the sale of our former Visualization Sciences Group, or VSG, operating segment for gross consideration of \$12.0 million in cash. The sale resulted in a gain of \$6.4 million on disposal of the discontinued operation. The gain was primarily comprised of cash proceeds of \$8.2 million, net of transaction costs, and recognition of a cumulative foreign currency translation gain of \$1.6 million, offset by net assets of the business of approximately \$3.4 million. The accounting for this sale and the VSG operating segment's operating results were included in discontinued operations in fiscal 2009, and prior period results have been reclassified to reflect the discontinuation (see Note P to the audited consolidated financial statements included elsewhere in this prospectus supplement).

Table of Contents*Fiscal 2008*

In April 2008, we exclusively licensed certain intellectual property associated with our former Avionics and Unmanned Systems Group, or AUSG, reporting unit (a component of the MFS operating segment) and sold certain capital equipment, patents and trademarks to a third-party for \$3.2 million in cash, paid in May 2008. In connection with this license agreement, we separately licensed to the buyer additional related software, agreed to provide maintenance on this related software for 12 months, agreed to cover the first \$0.1 million of warranty expense and provided the buyer a right to purchase the related AUSG inventory and capital equipment for an additional, mutually determinable, fee. In fiscal 2008 and 2009, the buyer elected to purchase an aggregate of \$0.5 million of AUSG inventory as allowed under the agreement.

In May 2008, we completed the sale of our former Embedded Systems and Professional Services, or ES/PS, business for \$0.4 million plus future royalties, net of tax. The ES/PS businesses were previously reported in the results of the VI operating segment. The sale resulted in a loss of \$1.0 million on disposal of the discontinued operation. We benefitted from royalty payments through December 2009, totaling \$0.2 million. These receipts were recorded as gain on sale of discontinued operations, after deducting taxes. The loss incurred as a result of the ES/PS business sale was primarily reflective of our perceived declining value of the underlying business and the potential employee severance obligation assumed by the buyer if the business did not perform. To compensate for the potential severance obligation, we provided a guarantee to the buyer which would have covered a portion of the severance costs if the buyer had to sever any ES/PS employees before December 19, 2008. This guarantee was settled in the second quarter of fiscal 2009 with no material payments made.

Results of Operations

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

	Six Months Ended December 31,		Years Ended June 30,		
	2010	2009	2010	2009	2008
Net revenues	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of revenues	42.1	42.6	43.7	44.2	42.2
Gross margin	57.9	57.4	56.3	55.8	57.8
Operating expenses:					
Selling, general and administrative	26.2	26.8	25.7	27.1	33.2
Research and development	19.9	21.7	20.8	22.4	23.8
Amortization of acquired intangible assets	0.6	0.9	0.9	1.3	2.7
Impairment of long-lived assets	0.0	0.2	0.1	0.0	0.3
Restructuring	0.0	0.3	0.1	0.9	2.3
Gain on sale of long-lived assets	0.0	0.0	0.0	0.0	(1.7)
Acquisition costs and other related expenses	0.3	0.0	0.0	0.0	0.0
Total operating expenses	47.0	49.9	47.6	51.7	60.6
Income (loss) from operations	10.9	7.5	8.7	4.1	(2.8)
Other income, net	0.8	0.6	0.7	0.1	2.4
Income (loss) from continuing operations before income taxes	11.7	8.1	9.4	4.2	(0.4)
Income tax (benefit) expense	3.5	1.3	(4.7)	0.0	1.9
Net income (loss) from continuing operations	8.2	6.8	14.1	4.2	(2.3)
Income (loss) from discontinued operations, net of income taxes	0.0	0.0	0.1	(10.8)	(15.8)
	0.0	0.1	0.0	5.9	(0.5)

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Gain (loss) on sale of discontinued operations, net of income taxes

Net income (loss)	8.2%	6.9%	14.2%	(0.7)%	(18.6)%
-------------------	------	------	-------	--------	---------

S-46

Table of Contents**Six Months Ended December 31, 2010 versus Six Months Ended December 31, 2009**

The following tables set forth, for the six month periods indicated, financial data from the consolidated statements of operations:

(In thousands)	December 31, 2010	As a % of Total Net Revenue	December 31, 2009	As a % of Total Net Revenue
Net revenues	\$ 107,621	100.0%	\$ 92,589	100.0%
Cost of revenues	45,321	42.1	39,422	42.6
Gross margin	62,300	57.9	53,167	57.4
Operating expenses:				
Selling, general and administrative	28,216	26.2	24,829	26.8
Research and development	21,378	19.9	20,097	21.7
Impairment of long-lived assets			150	0.2
Amortization of acquired intangible assets	636	0.6	868	0.9
Restructuring			254	0.3
Acquisition costs and other related expenses	307	0.3		
Total operating expenses	50,537	47.0	46,198	49.9
Income from operations	11,763	10.9	6,969	7.5
Other income, net	875	0.8	607	0.6
Income from continuing operations before income taxes	12,638	11.7	7,576	8.1
Income tax expense	3,773	3.5	1,236	1.3
Income from continuing operations	8,865	8.2	6,340	6.8
(Loss) income from discontinued operations, net of income taxes	(52)		15	
Gain on sale of discontinued operations, net of income taxes			74	0.1
Net income	\$ 8,813	8.2%	\$ 6,429	6.9%

Revenues

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

(In thousands)	December 31, 2010	December 31, 2009	\$ Change	% Change
ACS	\$ 102,369	\$ 86,440	\$ 15,929	18%
MFS	5,419	6,149	(730)	(12)%
Other	(167)		(167)	N/A
Total revenues	\$ 107,621	\$ 92,589	\$ 15,032	16%

Total revenues increased \$15.0 million, or 16%, to \$107.6 million during the six months ended December 31, 2010 as compared to the same period in fiscal 2010. International revenues represented approximately 6% and 10% of total revenues during the six months ended December 31, 2010 and 2009, respectively. The decrease in international revenues during the six months ended December 31, 2010 were primarily driven by both the sales to a commercial customer in the European region during the 2009 period whose sales are serviced by the U.S. region during the 2010 period, and reduced sales to a commercial customer in the Asia Pacific region.

Net ACS revenues increased \$15.9 million, or 18%, to \$102.4 million, during the six months ended December 31, 2010 as compared to the same period in fiscal 2010. This increase was primarily driven by an increase in sales to defense customers of \$7.0 million, mostly driven by an increase in the sales in radar market, partially offset by a decrease in the

S-47

Table of Contents

sales in electro-optical and electronic warfare applications. The increase was also due to an \$8.9 million increase in sales to commercial customers, primarily relating to an increase in sales in the semiconductor market, slightly offset by a decrease in the commercial computing market.

Net MFS revenues decreased \$0.7 million, or 12%, to \$5.4 million, during the six months ended December 31, 2010 as compared to the same period in fiscal 2010. This change was primarily driven by the completion of fiscal 2010 development programs.

Gross Margin

Gross margin was 57.9% for the six months ended December 31, 2010, an increase of 50 basis points from the 57.4% gross margin achieved during the same period in fiscal 2010. The increase in gross margin was primarily due to an increase in revenues and an increase in direct margin due to a favorable shift in product mix.

Selling, General and Administrative

Selling, general and administrative expenses increased \$3.4 million, or 14%, to \$28.2 million during the six months ended December 31, 2010 compared to \$24.8 million during the same period in fiscal 2010. The increase was primarily due to a \$2.9 million increase in employee compensation expense, including stock-based compensation and bonus expense, driven by a 13 person increase in headcount and company-wide pay increases. Additionally, there was a \$0.5 million increase in business meeting and travel expense, a \$0.4 million increase in consultant expense, and a \$0.3 million increase in depreciation expense. These increases were partially offset by a \$0.5 million decrease in IT support expense and a \$0.2 million decrease in facility expense. Selling, general and administrative expenses decreased as a percentage of revenues to 26.2% during the six months ended December 31, 2010 from 26.8% during the same period in fiscal 2010.

Research and Development

Research and development expenses increased \$1.3 million, or 6%, to \$21.4 million during the six months ended December 31, 2010 compared to \$20.1 million during the same period in fiscal 2010. The increase was primarily the result of a \$0.7 million increase in employee compensation expense, including stock-based compensation expense, driven by an 11 person increase in headcount and company-wide pay increases. Additionally, there was a \$0.3 million increase in contractor expenses, a \$0.3 million increase in IT support expense, and a \$0.2 million increase in efforts spent on technology developments. These increases were partially offset by a \$0.4 million increases in the time spent by our engineers on billable projects. Research and development continues to be a focus of our business with approximately 19.9% of our revenues dedicated to research and development activities during the six months ended December 31, 2010 and approximately 21.7% of our revenues dedicated to such activities during the same period in fiscal 2010. It is our priority to continue to improve the leverage of our research and development investments in order to realize a more near-term return.

Impairment of Long-Lived Assets

Impairment of long-lived assets was \$0.2 million in six months ended December 31, 2009. We were required to perform an impairment test due to a reduced expectation of the fair value for the shares we received as compensation in the sale of our Biotech business. As a result, we recorded an impairment charge of \$0.2 million.

There were no impairment charges recorded in the six months ended December 31, 2010.

Amortization of Acquired Intangible Assets

Amortization of acquired intangible assets decreased \$0.3 million or 27% to \$0.6 million for the six months ended December 31, 2010 as compared to \$0.9 million during the comparable period in fiscal 2010, due to certain assets becoming fully amortized during the first quarter of fiscal 2011.

Table of Contents

Restructuring Expense

Restructuring expense decreased \$0.3 million to nil during the six months ended December 31, 2010 as compared to \$0.3 million during the comparable period in fiscal 2010. Restructuring activities during the six months ended December 31, 2009, were primarily due to the elimination of four positions under the our restructuring plan within the ACS business unit (the Q1FY10 Plan), which was enacted in July 2009 following the completion of our divestitures as part of the reorganization of our business operations.

Acquisition Costs and Other Related Expenses

We incurred \$0.3 million of acquisition costs and other related expenses during the six months ended December 31, 2010. The acquisition costs and other related expenses consist of transaction costs incurred in connection with the acquisition of LNX Corporation, which was concluded on January 12, 2011.

Interest Income

Interest income for the six months ended December 31, 2010 decreased by \$0.2 million to nil compared to the same period in fiscal 2010. The decrease was attributable to sale of our marketable securities at the end of fiscal 2010. Our marketable securities held during fiscal 2010 yielded higher interest rates than the money market funds in which our cash was primarily invested during the three months ended December 2010. We held no marketable securities during the six months ended December 31, 2010.

Interest Expense

Interest expense for the six months ended December 31, 2010 decreased by \$0.1 million to \$0.1 million compared to the same period in fiscal 2010. The decrease was the result of the repayment of our borrowings against our ARS at the end of fiscal 2010. We did not have any debt during the six months ended December 31, 2010, other than capital lease obligations.

Other Income (Expense)

Other net income increased \$0.4 million, or 72%, to \$0.9 million during the six months ended December 31, 2010, as compared to the same period in fiscal 2010. Other income (expense) primarily consists of \$0.6 million in amortization of the gain on the sale leaseback of our corporate headquarters located in Chelmsford, Massachusetts and foreign currency exchange gains and losses. The \$0.4 million increase is primarily associated with a \$0.3 million foreign currency exchange gain during the six months ended December 31, 2010 as compared to a \$0.1 million foreign currency exchange loss for the same period in fiscal 2010. The foreign currency exchange gain was largely driven by strengthening of the British pound and the Japanese yen against the U.S. dollar.

Income Tax Provision

We recorded a provision for income taxes of \$3.8 million during the six months ended December 31, 2010 as compared to \$1.2 million during the same period in fiscal 2010. Our effective tax rate for the six months ended December 31, 2010 differed from the federal statutory tax rate of 35% primarily due to the impact of research and development tax credits and the impact of a Section 199 Manufacturing Deduction. Our effective tax rate for the six months ended December 31, 2009 differed from the federal statutory rate primarily due to research and development tax credits and a partial release of the valuation allowance on deferred tax assets.

Segment Operating Results

Operating profit for ACS increased \$6.8 million during the six months ended December 31, 2010 to \$15.5 million as compared to \$8.7 million for the same period in fiscal 2010. The increase in operating profit was primarily driven by increased revenues of \$15.9 million, which drove an improvement in gross margin. This improvement was partially offset by increases in operating expenses necessary to grow the business.

Table of Contents

Results from operations of the MFS segment decreased \$0.7 million during the six months ended December 31, 2010 to an operating loss of \$0.4 million as compared to an operating profit of \$0.3 million for the same period in fiscal 2010. The decrease in results from operations was primarily driven by lower revenue and an increase in operating expense of \$0.6 million relating to an increase in MFS headcount.

See Note M to our unaudited consolidated financial statements included in elsewhere in this prospectus supplement for more information regarding our operating segments and geographic information.

Fiscal 2010 versus Fiscal 2009*Revenues*

(In thousands)	Fiscal 2010	As a % of Total Net Revenue	Fiscal 2009	As a % of Total Net Revenue	\$ Change	% Change
ACS	\$ 188,967	95%	\$ 183,393	97%	\$ 5,574	3%
MFS	10,735	5%	5,546	3%	5,189	94%
Other	128				128	N/A
Total revenues	\$ 199,830	100%	\$ 188,939	100%	\$ 10,891	6%

Total revenues increased \$10.9 million, or 6%, to \$199.8 million during fiscal 2010. International revenues represented approximately 10% and 7% of total revenues during fiscal 2010 and 2009, respectively.

ACS revenues increased \$5.6 million, or 3%, during fiscal 2010 compared to fiscal 2009. Revenue from sales to defense customers increased \$7.3 million, from \$139.3 million in fiscal 2009 to \$146.6 million in fiscal 2010. This growth was driven by our participation in several radar programs. Revenue from sales to commercial customers decreased \$1.7 million, from \$44.1 million in fiscal 2009 to \$42.4 million in fiscal 2010. This decrease was driven by expected declines in sales of legacy product to medical equipment customers, partially offset by increases in sales to commercial communications and semiconductor inspection equipment customers.

MFS revenues increased \$5.2 million, or 94%, during fiscal 2010 as compared to fiscal 2009. This increase in revenue was primarily driven by an increase of \$5.5 million in revenue relating to an ISR quick reaction capabilities, or QRC, development program. This increase was slightly offset by the year over year completion of other development programs.

Net Other revenues increased \$0.1 million to \$0.1 million during fiscal 2010 as compared to nil during fiscal 2009. This increase is a result of revenues earned in fiscal 2010 attributed to a development program, which was not allocable to our two business units under contract accounting.

Gross Margin

Gross margin was 56.3% for fiscal 2010, an increase of 50 basis points from the 55.8% gross margin achieved in fiscal 2009. The increase in gross margin was primarily due to a \$5.8 million decrease in provisions for obsolete inventory, a \$1.5 million decrease in warranty expense and a \$0.8 million decrease in scrap expenditures, as compared to fiscal 2009. This increase was partially offset by a decrease in direct margin due to an unfavorable shift in product and business mix. Significant reserves for inventory obsolescence were booked in fiscal 2009 largely due to

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

lower demand in our commercial markets.

Selling, General and Administrative

Selling, general and administrative expenses increased 0.7% or \$0.3 million to \$51.5 million during fiscal 2010 compared to \$51.2 million during fiscal 2009. The increase was primarily due to a \$1.1 million increase in salary and fringe expense primarily attributed to an increase in severance expense for terminated employees and a \$0.2 million increase in recruiting costs associated with filling key executive positions. These increases were partially offset by decreases of \$0.8 million in legal fees and \$0.4 million in sales commissions paid due to lower bookings. Even with an

S-50

Table of Contents

increase in overall selling, general and administrative expenses in fiscal 2010, these expenses represented approximately 25.7% of our revenues during fiscal 2010, down from 27.1% in fiscal 2009 due to our continued focus on improving the underlying operations of the business.

Research and Development

Research and development expenses decreased 2% or \$0.9 million to \$41.5 million during fiscal 2010 compared to \$42.4 million for fiscal 2009. The decrease was primarily the result of a \$3.8 million increase in the time spent by our engineers on billable projects, a \$0.5 million decrease in stock-based compensation expense due to the difference in the values of awards that were fully vested in fiscal 2010 and the values of new grants, and a \$0.3 million decrease in depreciation expense due to assets becoming fully depreciated. The decrease in research and development expenses was partially offset by a \$2.1 million increase in salary expense due to an increase in headcount, a \$0.8 million increase in prototype material spending, and a \$0.4 million increase in equipment and supply costs. Research and development continues to be a focus of our business with approximately 20.8% of our revenues dedicated to research and development activities during fiscal 2010 and approximately 22.4% of our revenues dedicated to such activities during fiscal 2009. We continue to focus on improving the leverage of our research and development investments in order to realize a more near-term return.

Amortization of Acquired Intangible Assets

Amortization of acquired intangible assets decreased 29% or \$0.7 million to \$1.7 million during fiscal 2010 compared to \$2.4 million for fiscal 2009. The decrease was attributable to assets becoming fully amortized during fiscal 2010 and a fiscal 2010 impairment of a terminated license agreement.

Impairment of Goodwill And Long-Lived Assets

We recorded \$0.2 million in impairment charges in fiscal 2010 compared to no impairment charges recorded in fiscal 2009. These fiscal 2010 charges were the result of the \$0.1 million impairment of the remaining value of a terminated license agreement and \$0.1 million for the impairment of the fair value of the shares we received as compensation in the sale of our former Biotech business.

Following the VI and VSG divestitures, ACS is the only reporting unit containing goodwill, and in June 2010, we performed our annual goodwill impairment test in accordance with FASB ASC 350. This evaluation was performed consistent with prior years and relied on a discounted cash flow analysis, which was corroborated by two market-based analyses: one evaluated guideline companies and another that reviewed comparable transactions. For each analysis performed, the fair value of the ACS reporting unit was deemed to be in excess of the book value. As such, no impairment charge was recorded. There were no impairment charges in fiscal 2009.

Restructuring Expense

Restructuring expense for fiscal 2010 decreased \$1.5 million to \$0.2 million as compared to \$1.7 million in fiscal 2009. This decrease reflects no additional substantial activities and was primarily due to improved operating results in fiscal 2010 and an improved outlook for fiscal 2011 and beyond. As a result of the restructuring actions taken in fiscal 2010, we eliminated four positions, while we eliminated approximately 35 positions in fiscal 2009.

Interest Income

Interest income for fiscal 2010 decreased by \$1.6 million to \$0.5 million compared to \$2.1 million in fiscal 2009. The decrease was primarily attributable to decreased rates of return on our marketable securities, as well as a decrease in the amount of cash invested in marketable securities as a result of the redemption of our ARS throughout fiscal 2010. Seventy-five percent of each ARS redemption was required to be applied against our outstanding line of credit balance with UBS.

Table of Contents

Interest Expense

Interest expense for fiscal 2010 decreased by \$2.2 million to \$0.4 million compared to \$2.6 million in fiscal 2009. The decrease was primarily due to lower interest incurred as a result of the redemption of our ARS throughout fiscal 2010.

Other Income, Net

Other income, net for fiscal 2010 increased by \$0.4 million to \$1.2 million compared to \$0.8 million in fiscal 2009. The increase was primarily due to an expense associated with our deferred compensation plan that was closed in fiscal 2009 that did not recur in fiscal 2010, offset by an increase in foreign exchange losses.

Income Tax (Benefit) Expense

Our income tax benefit of \$9.4 million in fiscal 2010 is primarily related to the release of our valuation allowance on our U.S. deferred tax assets. Our effective income tax rate for fiscal 2010 was (50.2)% as a result of releasing a portion of our valuation allowance on our U.S. deferred tax assets. The changes in the valuation allowance resulted in a benefit of \$14.8 million. Excluding the impact of changes in the valuation allowance, our income tax provision for fiscal 2010 was an expense of \$5.4 million compared to an expense of \$0.1 million for fiscal 2009.

Deferred tax assets are to be reduced by a valuation allowance if, based on the weight of available positive and negative evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. At June 30, 2009, our U.S. deferred tax assets had a full valuation allowance of \$22.4 million. Based upon our operating results for the years immediately preceding and through June 30, 2010, as well as an assessment of our expected future results of operations in the U.S., at June 30, 2010, we determined that it had become more likely than not that we would realize a substantial portion of our deferred tax assets in the U.S. As a result, at June 30, 2010, we released \$7.4 million of valuation allowances on our U.S. deferred tax assets.

Discontinued Operations

In June 2009, we closed on the sale of our former VSG operating segment for gross consideration of \$12.0 million in cash. The sale resulted in a gain of \$6.4 million on disposal of the discontinued operation. The gain was primarily comprised of cash proceeds of \$8.2 million net of transaction costs, and recognition of a cumulative foreign currency translation gain of \$1.6 million, offset by net assets of approximately \$3.4 million. There were no material adjustments to the gain on disposal during fiscal 2010.

In January 2009, we completed the sale of our former VI operating segment for gross consideration of \$3.0 million in cash. Of the proceeds, a total of \$1.1 million was held back for general indemnification purposes and employee termination payments incurred by the buyer. Of the total held back, \$0.3 million was used for termination payments, \$0.4 million was used for general indemnification purposes and \$0.3 million was remitted back to the company. The sale resulted in a gain of \$4.2 million on disposal of the discontinued operation. The gain was primarily comprised of expected cash proceeds, net of transaction costs, of \$1.0 million and the recognition of a cumulative foreign currency translation gain of \$3.9 million, offset by net assets of the business of approximately \$0.8 million. There were no material adjustments to the gain on disposal during fiscal 2010. In December 2008, we were required to perform an interim impairment test of goodwill and long-lived assets as a result of a triggering event: our perceived decline in the market value for the VI business. Based on this interim evaluation, the carrying amount of goodwill in the VI operating segment exceeded the implied fair value, resulting in a goodwill impairment charge of \$13.0 million. In December 2008, we also recorded an impairment of the customer relationships intangible asset within the VI operating segment of \$1.5 million.

In September 2008, we completed an asset sale of our former Biotech business for a \$0.1 million cash payment, which was received in the second quarter of fiscal 2009, and \$0.3 million of preferred shares in the acquiring entity. The Biotech business was previously reported in the results of the MFS operating segment. The sale resulted in a gain of \$0.3 million on disposal of the discontinued operation.

Table of Contents

In accordance with FASB ASC 360, VSG, VI and Biotech have been reflected as discontinued operations for all periods presented in our consolidated financial statements, except the consolidated statements of cash flows. Accordingly, the revenue, costs, expenses, assets and liabilities of VSG, VI 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.

We had income from discontinued operations of \$0.2 million during fiscal 2010 compared to a loss from discontinued operations of \$20.3 million in fiscal 2009.

Segment Operating Results

Operating profit for ACS increased \$8.6 million to \$22.0 million during fiscal 2010, as compared to fiscal 2009. The increase in operating profit was driven by the \$5.5 million increase year over year in revenues. In addition, gross margin improved 70 basis points as a result of lower manufacturing costs. Amortization costs decreased \$0.7 million and restructuring costs decreased \$1.5 million in fiscal 2010, partially offset by higher investments in sales and marketing.

Losses from the operations of the MFS segment decreased by \$0.2 million during fiscal 2010 to an operating loss of \$0.7 million, as compared to an operating loss of \$0.9 million in fiscal 2009. The improvement in operating results was largely due to increased revenue relating to an ISR development program. This was offset by increased operating expenses relating to additional headcount.

See Note J to our audited consolidated financial statements included elsewhere in this prospectus supplement for more information regarding our operating segments.

Fiscal 2009 versus Fiscal 2008*Revenues*

(In thousands)	Fiscal 2009	As a % of Total Net Revenue	Fiscal 2008	As a % of Total Net Revenue	\$ Change	% Change
ACS	\$ 183,393	97%	\$ 188,489	99%	\$ (5,096)	(3)%
MFS	5,546	3%	1,719	1%	3,827	223%
Total revenues	\$ 188,939	100%	\$ 190,208	100%	\$ (1,269)	(1)%

Total revenues decreased \$1.3 million or 1% to \$188.9 million during fiscal 2009. International revenues represented approximately 7% and 10% of total revenues during fiscal 2009 and 2008, respectively.

ACS revenues decreased \$5.1 million, or 3%, during fiscal 2009 compared to fiscal 2008. Revenue from sales to commercial customers decreased \$14.2 million from \$58.3 million in fiscal 2008 to \$44.1 million in fiscal 2009. The decrease was primarily driven by declines in sales for commercial communications and semiconductor inspection equipment as a result of decreased demand in the commercial markets that we serve. This decrease was partially offset by a \$9.1 million increase in sales to defense customers to \$139.3 million in fiscal 2009. This increase was driven primarily by increases in radar and electronic warfare products and applications.

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

MFS revenues increased \$3.8 million, or 223%, during fiscal 2009 as compared to fiscal 2008. The increase in revenue was primarily due to the growth of our MFS business. MFS began generating external revenues in the first quarter of fiscal 2009, and for fiscal 2009, total MFS revenue was \$5.4 million. This increase was partially offset by the shutdown of our former AUSG reporting unit that began following the April 2008 exclusive license agreement of certain intellectual property associated with AUSG.

S-53

Table of Contents

Gross Margin

Gross margin was 55.8% for fiscal 2009, a decrease of 200 basis points from the 57.8% gross profit achieved in fiscal 2008. The decrease in gross margin was primarily due to a shift from legacy products, which carry higher gross margins, to new products and increases in service and systems integration revenue, both of which tend to carry lower gross margins. The decrease was also due to an increase in reserves for excess and obsolete inventory of \$4.6 million, largely due to the decline in commercial revenue. The decrease was partially offset by favorable shift in customer mix from commercial to defense customers.

Selling, General and Administrative

Selling, general and administrative expenses decreased 19% or \$11.9 million to \$51.2 million during fiscal 2009 compared to \$63.1 million during fiscal 2008. The decrease was primarily due to an \$8.8 million decrease in employee compensation expense, including stock-based compensation expense, driven by our restructuring and cost saving measures. Additionally, in fiscal 2009 there was a \$0.9 million decrease in depreciation expense due to assets becoming fully depreciated. In fiscal 2009 there was also a \$0.7 million decrease in legal expense and a \$0.5 million decrease in travel and entertainment expense resulting from general cost control efforts. The decrease in selling, general and administrative expenses was partially offset by a \$0.9 million increase in consulting expense due to an increased use of temporary employees in fiscal 2009 across several departments.

Research and Development

Research and development expenses decreased 6% or \$2.8 million to \$42.4 million during fiscal 2009 compared to \$45.2 million for fiscal 2008. The decrease was primarily the result of a \$3.8 million decrease in employee compensation expense, including stock based compensation expense, driven by our restructuring and cost savings measures. The decrease was also attributable to a \$1.5 million increase in the time spent by our engineers on billable projects, as well as a \$0.7 million decrease in depreciation expense due to assets becoming fully depreciated. The decrease in research and development expenses was partially offset by a \$3.2 million increase in outside development expenses related to new product development initiatives. Research and development continues to be a focus of our business with approximately 22.4% of our revenues dedicated to research and development activities during fiscal 2009 and approximately 23.8% of our revenues dedicated to such activities during fiscal 2008, respectively.

Amortization of Acquired Intangible Assets

Amortization of acquired intangible assets decreased 53% or \$2.7 million to \$2.4 million during fiscal 2009 compared to \$5.1 million for fiscal 2008. The decrease was primarily attributable to assets becoming fully amortized during fiscal 2009.

Impairment of Goodwill and Long-Lived Assets

There were no impairment charges in fiscal 2009 compared to impairment expense of \$0.6 million in fiscal 2008. Following the VI and VSG divestitures, ACS was the only reporting unit containing goodwill, and in May 2009, we performed our annual goodwill impairment test in accordance with FASB ASC 350. This evaluation was performed consistent with prior years and relied on a discounted cash flow analysis, which was corroborated by two market-based analyses: one evaluated guideline companies and another that reviewed comparable transactions. For each analysis performed, the fair value of the ACS reporting unit was deemed to be in excess of the book value. As such, goodwill was determined to be appropriately valued, and no impairment charge was recorded. The fiscal 2008 impairment expense was due to a write-off of goodwill recorded following the April 2008 shut-down of the AUSG reporting unit.

Restructuring Expense

Restructuring expense for fiscal 2009 decreased \$2.7 million to \$1.7 million as compared to \$4.5 million in fiscal 2008. This decrease was primarily due to the size of each of the restructuring activities incurred in the respective periods. As a result of the restructuring actions taken in fiscal 2009, we eliminated approximately 35 positions, while we eliminated approximately 80 positions in fiscal 2008.

Table of Contents

Interest Income

Interest income for fiscal 2009 decreased by \$4.4 million to \$2.1 million compared to fiscal 2008. The decrease was primarily attributable to decreased rates of return on our marketable securities, as well as a decrease in the amount of cash invested in marketable securities as a result of the February 2009 and May 2009 repurchase of an aggregate of \$125.0 million of our Notes.

Interest Expense

Interest expense for fiscal 2009 decreased by \$0.8 million to \$2.6 million compared to fiscal 2008. The decrease was primarily due to lower interest incurred as a result of the repurchase of our Notes in February 2009 and May 2009.

Other Income, Net

Other income, net for fiscal 2009 decreased by \$0.8 million to \$0.8 million compared to fiscal 2008. The decrease was primarily due to declines in the investments supporting the cash surrender value of the deferred compensation plan that occurred in the second quarter of fiscal 2009 as a result of the economic recession. Following this decline, the deferred compensation plan was terminated with all employees fully paid in January 2009.

Income Tax (Benefit) Expense

We recorded a provision for income taxes of \$0.1 million in fiscal 2009 reflecting a 1.3% effective tax rate, as compared to a 510.3% effective tax rate for fiscal 2008. Our effective tax rate for fiscal 2009 differed from the U.S. statutory tax rate of 35% primarily due to federal research and development tax credits, several significant permanent differences including amortization of our intangible assets, non-deductible stock compensation, and the impact of valuation allowances. The fiscal 2008 tax rate is significantly more than the U.S. statutory rate primarily due to several significant permanent differences, including amortization of our intangible assets, non-deductible stock compensation, research and development tax credits and the impact of valuation allowances.

Discontinued Operations

In June 2009, we closed on the sale of our former VSG operating segment for gross consideration of \$12.0 million in cash. The sale resulted in a gain of \$6.4 million on disposal of the discontinued operation. The gain was primarily comprised of net cash proceeds of \$8.2 million, net of transaction costs, and recognition of a cumulative foreign currency translation gain of \$1.6 million, offset by net assets of the business of approximately \$3.4 million.

In January 2009, we completed the sale of our former VI operating segment for gross consideration of \$3.0 million in cash. Of the proceeds, a total of \$1.1 million was held back for general indemnification purposes and employee termination payments to be incurred by the buyer. The sale resulted in a gain of \$4.2 million on disposal of the discontinued operation. The gain was primarily comprised of cash proceeds of \$1.0 million and recognition of a foreign currency translation gain of \$3.9 million associated with the VI business, offset by net assets of the business of \$0.8 million.

In September 2008, we completed an asset sale of our former Biotech business for a \$0.1 million cash payment, which was received in the second quarter of fiscal 2009, and \$0.3 million of preferred shares in the acquiring entity. The Biotech business was previously reported in the results of the MFS operating segment.

In fiscal 2009, we also recorded a gain of \$0.2 million related to royalty payments received from the sale of our former ES/PS business.

Loss from discontinued operations decreased \$9.6 million in fiscal 2009 to \$20.3 million as compared to fiscal 2008. The decrease in loss from discontinued operations was largely due to the fact that fiscal 2008 included a full year of the former VI operating segment's results, which resulted in a loss from discontinued operations of \$30.9 million, whereas, following the January 2009 sale of the business, fiscal 2009 only included a partial year, resulting in a loss from discontinued operations of \$20.3 million. Both fiscal 2009 and 2008 included VI goodwill impairment charges of \$13.0 million and \$17.4 million, respectively. Additionally, in December 2008, we recorded an impairment of the customer relationships intangible asset within the VI operating segment of \$1.5 million.

Table of Contents*Segment Operating Results*

Operating profit for ACS increased \$5.3 million to \$13.4 million during fiscal 2009 as compared to fiscal 2008. The increase in operating profit was mainly driven by a decrease in operating expenses of \$10.3 million, primarily attributable to a decrease in associate headcount as the result of organizational restructuring. The increase in profitability was partially offset by a decrease in gross margin of \$4.9 million largely due to a shift from legacy products, which carry higher gross margins, to new products and increases in service revenue, both of which tend to carry lower gross margins. The decrease was also due to an increase in reserves for excess and obsolete inventory of \$4.6 million, largely due to the decline in commercial revenue.

Losses from the operations of the MFS segment decreased by \$3.6 million during fiscal 2009 to an operating loss of \$0.9 million as compared to fiscal 2008. The improvement in operating results was largely due to the shutdown of our former AUSG reporting unit in the fourth quarter of fiscal 2008. During fiscal 2009, AUSG recorded an immaterial amount of operating expense as compared to expense of \$2.9 million in fiscal 2008. See Note J to our audited consolidated financial statements included elsewhere in this prospectus supplement for more information regarding our operating segments.

Off-Balance Sheet Arrangements

In connection with the divestitures of our former VI, VSG, Biotech and ES/PS businesses, we provided indemnification to the buyers of the respective businesses. Our indemnification obligations generally cover the buyers for damages resulting from breaches of representations, warranties and covenants contained in the applicable purchase and sale agreement and generally cover pre-closing tax liabilities of the divested businesses. Our indemnification obligations regarding the divested businesses are generally subject to caps on our obligations.

Other than the indemnification relating to the divestitures of our former VI, VSG, Biotech and ES/PS businesses, our lease commitments incurred in the normal course of business and certain other indemnification provisions (see Note M to the audited consolidated financial statements included elsewhere in this prospectus supplement), 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

(In thousands)	As of and for the Six Months Ended December 31,		As of and for the Years Ended June 30,		
	2010	2009	2010	2009	2008
Net cash provided by operating activities	\$ 17,453	\$ 7,774	\$ 15,708	\$ 11,199	\$ 13,726
Net cash provided by (used in) investing activities	\$ 12,252	\$ (2,782)	\$ 23,615	\$ 66,946	\$ (7,248)
Net cash provided by (used in) financing activities	\$ 2,466	\$ 252	\$ (30,594)	\$ (90,897)	\$ 703
Net increase (decrease) in cash and cash equivalents	\$ 32,196	\$ 5,247	\$ 9,291	\$ (12,095)	\$ 7,752
Cash and cash equivalents at end of period	\$ 88,437	\$ 52,197	\$ 56,241	\$ 46,950	\$ 59,045

Cash and Cash Equivalents

Our cash and cash equivalents increased by \$32.2 million from June 30, 2010 to December 31, 2010, primarily as the result of \$17.5 million generated by operating activities, \$18.0 million cash proceeds from sale of marketable securities and \$2.6 million generated from stock related

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

activities, offset by \$3.6 million in capital expenditures, \$2.2 million in payments for acquired intangible assets and \$0.1 million in payments for capital lease obligations.

During the six months ended December 31, 2010, we generated \$17.5 million in cash from operating activities compared to \$7.8 million generated from operating activities during the same period in fiscal 2010. The \$9.7 million

S-56

Table of Contents

increase in cash generated from operations was largely driven by a higher comparative net income of \$2.4 million, a \$13.7 million increase in cash generated from accounts receivables, a \$2.6 million increase in provision for deferred income taxes, a \$1.6 million increase in cash generated from prepaid income taxes and income tax payable and \$1.2 million increase in stock-based compensation, depreciation and amortization expense. These improvements were partially offset by a \$5.1 million increase in cash used for accounts payable and accrued expenses, a \$2.9 million increase in cash used for inventory, a \$1.9 million increase in cash used for deferred revenue and other non-current liabilities, \$1.2 million increase in cash used for prepaid expenses and other current assets and a \$0.7 million increase in cash used or other assets. 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 six months ended December 31, 2010, we generated \$12.3 million in cash in investing activities compared to \$2.8 million used in investing activities during the same period in fiscal 2010. The \$15.1 million increase in cash provided by investing activities was primarily driven by a \$17.2 million increase in net sale of marketable securities and \$0.7 million decrease in cash payments related to the sale of discontinued operations, offset by a \$2.0 million increase in cash used for purchases of intangible assets and a \$0.8 million increase in capital expenditures.

During the six months ended December 31, 2010, we generated \$2.5 million in cash from financing activities compared to \$0.3 million generated from financing activities during the same period in fiscal 2010. The \$2.2 million increase in cash generated from financing activities was primarily due to an increase of \$1.5 million of cash generated from stock related activities, the absence of \$0.6 million in payments under our line of credit with UBS, and a \$0.1 million payment of deferred financing costs during the six months ended December 31, 2009.

During the six months ended December 31, 2010, our primary source of liquidity came from existing cash and cash generated from operations. Our near-term fixed commitments for cash expenditures consist primarily of payments under operating leases, a supply agreement and inventory purchase commitments with our contract manufacturers. We do not currently have any material commitments for capital expenditures.

On January 12, 2011, we acquired the outstanding equity interests in LNX Corporation. The purchase price for the acquisition was approximately \$31 million in cash, subject to post-closing adjustments. In addition to the \$31 million cash purchase price, we also committed to pay up to \$5 million upon the achievement of financial targets in calendar year 2011 and 2012.

Based on our current plans and business conditions, we believe that existing cash, cash equivalents, available line of credit with Silicon Valley Bank and cash generated from operations will be sufficient to satisfy our anticipated cash requirements for at least the next twelve months.

In fiscal 2010, we exercised the put option to sell our ARS balance to UBS at par. The transaction settled on July 1, 2010 when we received \$18.0 million in cash.

Our cash and cash equivalents increased by \$9.3 million during fiscal 2010 primarily as the result of the \$32.0 million of cash received on the redemption of our auction rate securities by UBS, \$15.7 million generated by operating activities and \$3.3 million generated from stock related activities, partially offset by a \$33.4 million payoff of our borrowings against our auction rate securities, \$7.3 million in capital expenditures and \$0.8 million in payments related to sales of discontinued operations.

During fiscal 2010, we generated \$15.7 million in cash from operations compared to \$11.2 million generated from operations during fiscal 2009. The \$4.5 million increase in the amount of cash generated from operations was largely driven by a \$29.6 million improvement in net income, an \$18.4 million decrease in cash used for accounts payable and accrued expenses, an \$11.1 improvement in losses on the sale of discontinued operations, and a \$3.3 million increase in cash from deferred revenues and customer advances. These improvements were partially offset by a \$16.5 million decrease in accounts receivable, a \$14.3 million decrease in the non cash adjustment from the impairment of goodwill and long-lived assets, an \$8.3 million increase in deferred tax assets, an \$8.3 million decrease in inventory activities, a \$4.5 million reduction in prepaid expenses and other current assets, a \$2.5 million reduction to depreciation and amortization expense, and a \$2.2 million increase to prepaid income taxes. 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.

Table of Contents

The increase in accounts receivable and unbilled receivables is due to our days sales outstanding, or DSO, increasing to 62 days as of June 30, 2010 compared to 53 days as of June 30, 2009. DSO increased as we experienced poorer linearity with greater revenues in the fourth quarter of fiscal 2010. DSO is calculated based on actual total revenue for the three months ended June 30, 2010 and 2009 and accounts receivable, net and unbilled receivable balances as of June 30, 2010 and 2009.

During fiscal 2009, we generated \$11.2 million in cash from operations compared to \$13.7 million generated from operations during fiscal 2008. The \$2.5 million decrease in the amount of cash generated from operations was largely driven by a \$12.0 million increase in cash used for accounts payable and accrued expenses and a \$5.4 million decrease in cash from deferred revenues and customer advances, offset by lower comparative net losses, a \$10.0 million improvement in inventory activities and a \$3.9 million improvement in prepaid expenses and other current assets.

During fiscal 2010, we generated \$23.6 million of cash from investing activities compared with \$66.9 million generated from investing activities during fiscal 2009. The \$43.3 million decrease in cash generated from investing activities was primarily driven by a \$28.5 million decrease in net sales of marketable securities, a \$10.8 million decrease in proceeds from the sale of discontinued operations, and a \$3.2 million increase in cash used for purchases of capital assets.

During fiscal 2009, we generated \$66.9 million of cash from investing activities compared with \$7.2 million used in investing activities during fiscal 2008. The \$74.1 million increase in cash generated from investing activities was primarily driven by a \$65.1 million increase in net sales of marketable securities, due to the cash required to pay off our Notes, and \$6.0 million increase in proceeds from the sale of discontinued operations and long-lived assets.

During fiscal 2010, we used \$30.6 million of cash in our financing activities compared with \$90.9 million used in financing activities during fiscal 2009. The \$60.3 million decrease in cash used in financing activities was primarily due a reduction in cash used on the repurchase of \$125.0 million (face value) aggregate principal amount of our 2% Notes, offset by cash used to retire our \$33.4 million UBS line of credit. We paid the consideration for the UBS line of credit from a combination of cash on hand and the proceeds from the redemption of certain of our ARS by UBS. We originally drew down \$33.4 million on the UBS line of credit in fiscal 2009.

During fiscal 2009, we used \$90.9 million of cash in our financing activities compared with \$0.7 million generated from financing activities during fiscal 2008. The decrease in cash generated from financing activities was primarily due to our repurchase of \$125.0 million (face value) aggregate principal amount of our 2% Notes from the holder of such Notes. We repurchased the Notes for aggregate consideration equal to the principal amount of the Notes plus accrued interest. We paid the consideration for the Notes from a combination of cash on hand and the proceeds from the sale of certain U.S. Treasury securities held by us. We originally sold \$125.0 million aggregate principal amount of the Notes in April 2004.

The decrease in cash used in financing activities was partially offset by a \$33.4 million borrowing under our UBS line of credit. In October 2008, we received a rights offering from UBS, referred to as the rights offering, in which we elected to participate. By electing to participate in the rights offering, we (1) received the right to sell the ARS back to UBS at par plus interest, at our sole discretion, during a two-year period beginning on June 30, 2010, and (2) received an option to borrow up to 75% of the fair value of the ARS. Upon borrowing against the ARS, we forgo the interest income on the underlying ARS while the borrowings are outstanding and in return are not charged any interest expense. The line of credit included in the offering replaced our previous margin loan facility with UBS. As of June 30, 2009, we had \$33.4 million outstanding under this line of credit, collateralized by the \$50.1 million par value of ARS.

During fiscal 2010, our primary source of liquidity came from existing cash and marketable securities, the cash generated from operations and the \$50.1 million redemption of our ARS by UBS, offset by the retirement of our \$33.4 million borrowings under our UBS line of credit. Our near-term fixed commitments for cash expenditures consist primarily of payments under operating leases, a supply agreement and inventory purchase commitments with our contract manufacturer. We do not currently have any material commitments for capital expenditures.

Based on our current plans and business conditions, we believe that existing cash, cash equivalents, marketable securities, available line of credit with Silicon Valley Bank and cash generated from operations will be sufficient to satisfy our anticipated cash requirements for at least the next twelve months.

Table of Contents

On June 30, 2010, we exercised the put option to sell our remaining \$18.0 million ARS balance to UBS at par value. The transaction settled on July 1, 2010 when we received \$18.0 million in cash.

Borrowings Under UBS Line of Credit

In fiscal 2010, we repaid all of our borrowings under our line of credit with UBS. Upon the settlement of the put option for our ARS on July 1, 2010, the UBS line of credit terminated.

Senior Secured Credit Facility

On February 12, 2010, we entered into a loan and security agreement, or the Loan Agreement, with Silicon Valley Bank, or the Lender. The Loan Agreement provides for a \$15.0 million revolving line of credit, or the Revolver, and a \$20.0 million acquisition line, or the Term Loan. The Revolver is available for borrowing during a two-year period, with interest payable monthly and the principal due at the February 11, 2012 maturity of the Revolver. The Term Loan is available for up to three separate borrowings, with total borrowings not to exceed \$20.0 million, until February 11, 2012. The Term Loan has interest payments only through the August 1, 2010 payment date, and converts to interest and principal payments starting on the September 1, 2010 payment date through the February 11, 2014 maturity of the Term Loan. The Term Loan was not used for the January 12, 2011 acquisition of LNX Corporation.

The Loan Agreement bears interest, at our option, at a rate per annum equal to either: (i) the prime rate minus 0.25% to plus 0.25%; or (ii) the LIBOR rate plus 2.75% to 3.25% (in each case, based on our consolidated leverage ratio at the time of borrowing). For prime rate borrowings, the prime rate shall be the greater of: (i) 4.00%; or (ii) the Lender's prime rate. We may not have LIBOR credit extensions having more than four different interest periods outstanding at any point in time. We are required to pay a fee on the daily unused portion of the Loan Agreement of 0.30% per annum. Borrowings under the Revolver are available for letters of credit, cash management services, working capital, general business purposes and foreign exchange. Borrowings under the Term Loan are available to fund acquisitions.

Borrowings under the Loan Agreement are secured by a first-priority security interest in all of our domestic assets, including intellectual property, but limited to 65% of the voting stock of foreign subsidiaries. Our MFS and LNX subsidiaries are guarantors and have granted a security interest in their assets in favor of the Lender. The Lender may require Mercury Computer Systems Limited, our United Kingdom subsidiary, or Nihon Mercury Computer Systems, K.K., our Japanese subsidiary, to provide guarantees in the future if the cash or assets of such subsidiary exceed specified levels.

The Loan Agreement provides for conventional affirmative and negative covenants, including a minimum quick ratio of 1.5 to 1.0. If we have less than \$10 million of cash equivalents in accounts with the Lender in excess of our borrowings under the Loan Agreement, we must also satisfy a \$15 million minimum trailing-four-quarter cash-flow covenant. The minimum cash flow covenant is calculated as our trailing-four quarter adjusted EBITDA (as defined in the Loan Agreement; EBITDA adjusted to add back non-cash stock compensation expenses and other one-time non-cash expenses as approved by the Lender), minus our capital expenditures during such period, and minus taxes paid by us in cash during such period. In addition, the Loan Agreement contains certain customary representations and warranties and limits us and our subsidiaries ability to incur liens, dispose of assets, carry out certain mergers and acquisitions, make investments and capital expenditures and defines events of default and limitations on us and our subsidiaries to incur additional debt. The Loan Agreement required us to exercise the put option for our ARS within 30 days of June 30, 2010, and to use the proceeds from the ARS to pay off our outstanding borrowings under our existing ARS credit facility with UBS. We exercised our put option for our ARS on June 30, 2010 and repaid our borrowings under our existing ARS credit facility on June 28, 2010.

We have had no borrowings against our Term Loan and Revolver since inception and were in compliance with all covenants in the Loan Agreement as of December 31, 2010.

Table of Contents*Commitments and Contractual Obligations*

The following is a schedule of our commitments and contractual obligations outstanding at December 31, 2010:

(In thousands)	Total	Less Than 1 Year	2-3 Years	4-5 Years	More Than 5 Years
Purchase obligations	\$ 12,562	\$ 12,562	\$	\$	\$
Operating leases	15,735	3,108	5,350	4,499	2,778
Supply agreement	1,665	1,665			
Capital lease obligations	306	185	121		
	\$ 30,268	\$ 17,520	\$ 5,471	\$ 4,499	\$ 2,778

We have a liability at December 31, 2010 of \$2.0 million for uncertain tax positions that have been taken or are expected to be taken in various income tax returns. We do not know the ultimate resolutions of these uncertain tax positions and as such, do not know the ultimate timing of payments related to this liability. Accordingly, these amounts are not included in the above table.

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 \$12.6 million at December 31, 2010.

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 us to place orders for the inventory four times a year. Upon the earlier of January 31, 2007 or completion of the wafer fabrication process, we were required to and paid approximately \$1.9 million of the \$6.5 million. Further, upon expiration of the agreement on August 31, 2012, if we do not purchase the full \$6.5 million in inventory, we may be required to pay a penalty equal to 35% of the remaining inventory balance. As of December 31, 2010, the remaining minimum commitment related to this agreement was \$1.7 million, which is the 35% penalty on the remaining inventory balance. While we expect to continue to purchase this inventory through the expiration of the agreement, we do not expect to purchase the full \$6.5 million noted above. As of December 31, 2010, we have recorded an accrued liability of approximately \$0.5 million for the 35% penalty we anticipate on paying for unpurchased inventory.

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, hold 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.

Table of Contents

Recent Accounting Pronouncements

In December 2010, the FASB issued ASU 2010-28, *When to Perform Step 2 of the Goodwill Impairment Test for Reporting Units with Zero or Negative Carrying Amounts*, a consensus of the FASB Emerging Issues Task Force (Issue No. 10-A). The guidance modifies Step 1 of the goodwill impairment test for reporting units with zero or negative carrying amounts. For those reporting units, an entity is required to perform Step 2 of the goodwill impairment test if it is more likely than not that a goodwill impairment exists. This guidance is effective for us on July 1, 2011 and it is not expected to have a material impact to our consolidated financial statements.

In December 2010, the FASB issued ASU 2010-29, *Business Combinations (Topic 805), Disclosure of Supplementary Pro Forma Information for Business Combinations*, a consensus of the FASB Emerging Issues Task Force (Issue No. 10-G). This guidance specifies that if a public entity presents comparative financial statements, the entity (acquirer) should disclose revenue and earnings of the combined entity as though the business combination(s) that occurred during the current year had occurred as of the beginning of the comparable prior annual reporting period only. It also expands the supplemental pro forma disclosures under Topic 805 to include a description of the nature and amount of material, nonrecurring pro forma adjustments directly attributable to the business combination included in the reported pro forma revenue and earnings. This guidance is effective prospectively for material business combinations for which the acquisition date is on or after July 1, 2011.

In March 2010, the FASB ratified ASU 2010-17, *Revenue Recognition Milestone Method (Topic 605): Milestone Method of Revenue Recognition*, or FASB ASU 2010-17, which provides guidance related to revenue recognition that applies to arrangements with milestones relating to research or development deliverables. This guidance provides criteria that must be met to recognize consideration that is contingent upon achievement of a substantive milestone in its entirety in the period in which the milestone is achieved. This guidance is effective for us on July 1, 2010 and is not expected to have a material impact to our consolidated financial position or results of operations.

Table of Contents

Business

Our Company

We design, manufacture and market high-performance embedded, real-time digital signal and image processing systems and software for specialized defense and commercial 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, video, sonar and signals intelligence data. Our systems are also used in semiconductor imaging applications, including photomask generation and wafer inspection. We also provide radio frequency products for enhanced communications capabilities in military and commercial applications. Additionally, we entered the prime defense contracting market space in fiscal 2008 through the creation of our wholly-owned subsidiary, Mercury Federal Systems, Inc., to focus on reaching the federal intelligence and homeland security agencies.

Our products and solutions address mission-critical requirements within the defense industry for C4ISR (command, control, communications, computers, intelligence, surveillance and reconnaissance) and electronic warfare, or EW, systems and services, and target several markets including maritime defense, airborne reconnaissance, ballistic missile defense, ground mobile and force protection systems and tactical communications and network systems. Our products have been deployed in approximately 300 different programs with over 25 different prime defense contractors.

Our revenue, income from continuing operations and adjusted EBITDA for the six months ended December 31, 2010 were \$107.6 million, \$8.9 million and \$19.5 million, respectively. Our revenue, income from continuing operations and adjusted EBITDA for fiscal 2010 were \$199.8 million, \$28.1 million and \$29.9 million, respectively. See page S-14 of this prospectus supplement for a reconciliation of our adjusted EBITDA to income from continuing operations.

Our operations are organized in the following two business units:

- ⁿ *Advanced Computing Solutions, or ACS.* This business unit is focused on specialized, high performance signal processing solutions that encompass signal acquisition, digitalization, computing, storage and communications, targeted to key market segments, including defense, semiconductor, communications and other commercial computing. ACS' s open system architecture solutions span the full range of embedded technologies from board level products to fully integrated sub-systems. Our products utilize leading-edge processor technologies architected to address highly data-intensive applications that include signal, sensor and image processing within environmentally constrained military and commercial applications. These products are highly optimized for size, weight and power, as well as for the performance and ruggedization requirements of our customers. Customized design and systems integration services extend our capabilities to tailor solutions to meet the specialized requirements of our customers. In fiscal 2010, ACS accounted for 95% of our total net revenues.
- ⁿ *Mercury Federal Systems, or MFS.* This business unit is focused on services and support work with the Department of Defense, or the DoD, and federal intelligence and homeland security agencies, including designing and engineering new intelligence, surveillance and reconnaissance, or ISR, capabilities to address present and emerging threats to U.S. forces. MFS is part of our long-term strategy to expand our software and services presence and pursue growth in platform-ready ISR sub-systems, particularly those with classified intellectual property. MFS offers a wide range of engineering architecture and design services that enable clients to deploy leading edge computing capabilities for ISR systems on an accelerated time cycle. This business unit enables us to combine classified intellectual property with the commercially developed application-ready sub-systems being developed by ACS, providing customers with platform-ready, affordable ISR sub-systems. In fiscal 2010, MFS accounted for 5% of our total net revenues.

Table of Contents

Recent Developments

On January 12, 2011, we completed the acquisition of LNX Corporation, or LNX, a designer and manufacturer of next generation radio frequency receivers for signals intelligence, communications intelligence and electronic attack applications. Under the terms of the stock purchase agreement, we acquired LNX for an all-cash purchase price of \$31.0 million plus an earn-out of up to \$5.0 million payable upon the achievement of financial targets in calendar years 2011 and 2012. We believe the successful acquisition of LNX represents a significant step in our growth strategy and strongly augments our existing capabilities within our core markets. LNX enables us to capitalize on our existing program presence while providing new capabilities that will allow us to target additional opportunities. LNX's position as a key supplier to the prime contractor under the JCREW 3.3 program significantly increases our content on that platform. We believe that LNX's technology and market presence could also strengthen our MFS business.

Our History

Since 1981, we have operated as a provider of advanced embedded computing products primarily for end markets in the defense industry. Over time, we expanded our business to focus on a number of commercial end markets, including the biotechnology, embedded systems and professional services, visual imaging software and life sciences markets. While this strategy was designed to expand our target market, in the mid-2000's many of these new businesses required large investments, which significantly reduced our profitability, and we found ourselves spread across several disparate, unprofitable end-user segments.

In November 2007, Mark Aslett joined Mercury as chief executive officer in order to execute a strategy to refocus the business and return our Company to growth and profitability. Since then, Mr. Aslett and the current management team have successfully sold or shut down five non-core business units, returned the Company to profitability and growth and are transforming the Company into a best-of-breed provider of affordable, open architecture, commercially developed, application-ready and multi-intelligence sub-systems for our primary defense embedded computing end markets. Our refocused business combined with improved operations has led to improved overall financial performance, including:

- n increasing defense sales from \$111.3 million in fiscal 2007 to \$157.5 million in fiscal 2010 representing more than 40% growth, or 12% on a compounded annual rate, and increasing defense sales as percentage of revenue from 55% in fiscal 2007 to 79% in fiscal 2010;
- n increasing income from continuing operations from a loss of \$28.9 million in fiscal 2007 to income of \$28.1 million in fiscal 2010 and increasing income from continuing operations from negative 14% for fiscal 2007 to 14% for fiscal 2010;
- n improving our cash flow, with negative cash flow from operations of \$10.3 million in fiscal 2007 to positive cash flow from operations of \$15.7 million in fiscal 2010; and

n improving our balance sheet by reducing total indebtedness from \$125.0 million at June 30, 2007 to zero at December 31, 2010. During this period of improving financial performance, we continued to have success on programs such as Aegis, Global Hawk, Predator and Reaper and have reinvested in our business. We improved our position as a best-of-breed provider in our target markets, with major design wins including the Patriot missile program, the JCREW 3.3 program, which is the DoD's principal program to counter improvised explosive devices, or IEDs, and the Surface Electronic Warfare Improvement Program, or SEWIP, the EW improvement program for surface vessels to counteract a variety of emerging threats. In fiscal 2010, we grew organically, improved our working capital position and profitability metrics, and continued to refresh our product portfolio, and grew our services and systems integration business. We strengthened our position in our core ISR, EW and ballistic missile defense markets and believe our position in these markets will continue to grow. In fiscal 2011, we are continuing to strengthen and grow our core business by enhancing our current product portfolio and increasing our ISR domain expertise and capabilities. We continue to be successful on our existing programs and to pursue new design wins on high growth, high priority programs. In response to new and emerging threats, and the need for better intelligence in shorter time frames, we have developed new products and capabilities that, in conjunction with our customers, seek to address those areas of concern. We have also grown and anticipate

Table of Contents

growing further through acquisitions of performing companies that will complement, strengthen and grow our core business. As a result of these efforts, we believe we are well-positioned to capture existing and future growth opportunities in our end markets.

Our Market Opportunity

Our market opportunity is defined by the growing demand for advanced signal processing capabilities within the defense industry. Our primary market is the defense sector, specifically EW, ballistic missile defense and C4ISR; and commercial markets, which include semiconductor, commercial communications and other commercial computing markets. We believe we are well-positioned in growing, sustainable market segments of the defense sector that leverage advanced technology to improve warfighter capability and provide enhanced force protection capabilities.

We believe there are a number of evolving trends that are reshaping our target market and accordingly provide us with attractive growth opportunities, including:

The U.S. defense electronics market is large and growing. We have expanded our target market and are well-positioned from a DoD budget, program and platform perspective. DoD spending was \$693.3 billion in government fiscal year 2010, and is projected to grow to \$708.2 billion in government fiscal year 2011. The portion of this spending most relevant to our business is referred to as C4ISR spending. According to industry sources, the market for C4ISR within the DoD was approximately \$42.7 billion in government fiscal year 2010 and estimated to grow to approximately \$43.3 billion in government fiscal year 2011. C4ISR spending represents approximately 6% of the total DoD spending annually. We believe ISR, EW and ballistic missile defense have a high priority for future DoD spending. We have positioned ourselves well in these important areas and have won a position on many programs and platforms. We are a best-of-breed provider in the design and development of performance optimized electronic sub-systems for the ISR market. As a leader in this market, we often contract with multiple prime defense contractors as they bid for a particular project, thereby increasing our chance of a successful outcome.

The rapidly expanding demand for tactical ISR is leading to significant growth in sensor data, causing even greater demand for the capability of our products to process data onboard the platform. An increase in the prevalence and resolution of ISR sensors is generating significant growth in the associated data that needs to be turned into information for the warfighter in a timely manner. In addition, several factors are driving the defense and intelligence industries to demand greater capability to collect and process data onboard the aircraft, unmanned aerial vehicles, or UAVs, ships and other vehicles, which we refer to collectively as platforms. Each platform has limited bandwidth and cannot realistically transmit all the data that is collected onboard the platform, and this problem will increase over time as sensor generated data will continue to outstrip data communication capabilities. Looking forward, we believe our armed forces will need platforms that operate more autonomously and possibly in denied communication environments. In addition, the platforms themselves require increased persistence, and reducing the need to communicate data off the platform can help increase the ability of the platform to remain on or fly above the battlefield for extended periods. Finally, the scarcity and cost of human analysts, the demand for timely and relevant quality information and the increasing need to fuse data not only from multiple onboard sensors but also with intelligence generated from other platforms is causing even greater demand for the onboard processing capabilities our products provide.

IEDs, rogue nations' missile programs and threats from peer nations are causing greater investment in new EW and ballistic missile defense capabilities. Existing threats, such as IEDs in the form of roadside bombs, continue to be effective weapons of choice for insurgents. We have developed responses for these existing threats, including providing the core radio frequency and signal processing for the JCREW 3.3 counter-IED program. Our acquisition of LNX increased our content on the JCREW 3.3 program by over 40%, and this program has the potential to become the largest single program we have won in our history.

There are also new and emerging threats, such as peer nations developing stealth technologies, including stealth aircraft and new anti-ship ballistic missiles that potentially threaten the U.S. naval fleet. Finally, U.S. armed forces require enhanced signals intelligence and jamming capabilities. In response to these emerging threats, we have engaged in the following:

- n we provide the core radar processing on both the Aegis ballistic missile defense systems as well as the Patriot missile system, a ground-based missile defense platform;

Table of Contents

- n in the fall of 2010, we were selected by Lockheed Martin to work on SEWIP, the surface EW improvement program designed to upgrade the Naval Surface Fleet EW capability and counteract a range of new peer threats;
- n we provide radar processing capabilities for the F-22 Raptor and F-35 Joint Strike Fighter, the latest generation of U.S. stealth-enabled fighters; and

- n to respond to the need for enhanced signals intelligence and jamming capabilities, we recently achieved a new design win for the next generation of the airborne signals intelligence payload, or ASIP, program.

The long-term DoD budget pressure is pushing more dollars toward upgrades of the electronic sub-systems on existing platforms, which may increase demand for our products. The DoD is moving from major new weapons systems developments to upgrades of the electronic sub-systems on existing platforms. These upgrades are expected to include more and improved sensors, signal processing, ISR algorithms, computing and communications. We believe that upgrades to provide new urgent war fighting capability, driven by combatant commanders, are occurring more rapidly than traditional prime defense contractors can easily react. We believe these trends will cause prime defense contractors to increasingly seek out our high performance, cost-effective open architecture products.

Defense procurement reform is causing the prime defense contractors to outsource more work to best-of-breed companies. The U.S. government is intensely focused on making systems more affordable and shortening their development time. As a company that provides commercial items to the defense industry, we believe our products are often more affordable than products with the same functionality developed by a prime defense contractor. Prime defense contractors are increasingly being asked to work under firm fixed price contract awards, which can pressure profit margins and increase program risk. Prime defense contractors are also being asked to produce systems much more rapidly than they have in the past. In addition, the U.S. government is demanding more use of commercial items and open system architectures. In this budget environment, there are fewer research and development dollars available with which prime defense contractors can invest early-on to differentiate their offerings while competing for new program awards or recompetes. As a result, prime defense contractors are generally trying to adjust their cost model from a high fixed cost model to a variable cost model. All of these factors are forcing the prime defense contractors to outsource more work to best-of-breed subcontractors, and we have transformed our business model over the last several years to address these long-term outsourcing needs and other trends.

The chart below highlights the existing and emerging threats, the markets that have developed around those threats and how our solutions and products work within these markets.

Existing and			
Emerging Threats	Markets	DoD Programs	Our Solutions and Products
IEDs/Roadside Bombs	Electronic Warfare	JCREW 3.3 counter-IED	Signal processing and radio frequency receiver for prime defense contractor
Insurgents	C4ISR	Global Hawk, Predator and Reaper UAVs	Sensor processing for prime defense contractor
		Classified wide area airborne surveillance program	Sensor processing payload provider for prime defense contractor
	Electronic Warfare	ASIP Predator and Global Hawk UAVs	Sensor processing for prime defense contractor
Rogue Nation Missile Threat	Ballistic Missile Defense	Patriot missile	Radar processing for prime defense contractor
Peer Nation Stealth Fighter	C4ISR	AEGIS	
		F22 Raptor	Radar processing for prime defense contractor
		F35 Joint Strike Fighter	

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Peer Nation Threats to U.S. Naval
Surface Fleet

Electronic Warfare

SEWIP

Radio frequency receiver for
prime defense contractor

S-65

Table of Contents

Our Business Strategy

Our long-term strategy is to become a national asset and mission critical supplier to the defense and intelligence community and a leading provider of more affordable, open architecture, commercially developed, application-ready and multi-intelligence sub-systems.

We intend to achieve this objective through continued investment in advanced new products and solutions development in ACS in the fields of radio frequency, analog to digital and digital to analog conversion, advanced multi- and many-core signal processing systems, digital storage solutions as well as software defined communications capabilities. In fiscal 2008, we established our services and systems integration, or SSI, business to become a commercial outsourcing partner to the large prime defense contractors as they seek the more rapid design, development and delivery of affordable, best-of-breed, application-ready ISR sub-system solutions. We believe that services-led engagements in SSI may lead to long-term production sub-system annuity revenues that will continue long after the initial services are delivered. This business model positions us to be paid for work we would have previously expensed through our own income statement, to team concurrently with multiple prime defense contractors as they pursue new business with the government, and to engage with our customers much earlier in the design cycle and ahead of our competition. In fiscal 2008, we also established MFS the ISR systems and technology services arm of Mercury. Our goal in MFS is to enhance the application-ready sub-systems from ACS with classified, domain-specific intellectual property that results in the delivery of platform-ready ISR sub-system solutions to our customers.

Key elements of our strategy to accomplish our continued growth objectives include:

Achieve Design Wins on High Growth, High Priority Defense Programs. We believe that the most significant long-term, leading indicator in our business is the number and probable value of design wins awarded. We believe our advanced embedded signal processing solutions position us well going forward to capture design wins on key high growth, high priority defense programs within our targeted segments of the C4ISR market. Last year, we won designs in persistent ISR related signals intelligence payloads on UAVs and other aerial platforms. As a result of these successes, we now have significant content on all major UAV platforms, including Global Hawk, Predator, Broad Area Maritime Surveillance (BAMS), Reaper and a wide area airborne surveillance platform. Our ballistic missile defense wins include additional designs on the Aegis program, as well as continued foreign military sales for the Patriot missile program. In EW, we won key designs related to the JCREW 3.3 next-generation counter-IED program and the Navy's SEWIP program. Together, these wins represent a substantial opportunity for us in the years ahead.

Continue to Provide Excellent Performance on Our Existing Programs. The foundation for our growth remains our continued involvement with existing programs that are in late-stage development or currently in production, such as Aegis, the F-35 Joint Strike Fighter, Patriot missile, the F-16 aircraft and the Global Hawk, Predator and Reaper UAV programs. As part of a long-term reprioritization, the DoD is shifting its emphasis from major new weapons systems development to upgrades of existing programs and platforms. The upgrades on these programs focus on four key areas: improved sensors; more advanced signal processing and computing; enhanced ISR algorithms; and better communications on and off the platform. A key element of our strategy is to continue to provide high performance, cost-effective solutions on these programs and for these customers as a best-of-breed provider.

Pursue Strategic, Capability-Enhancing Acquisitions. We will continue to pursue selective strategic acquisitions of profitable growing businesses to augment both our ACS and MFS businesses using the following strategies: adding technologies or products that expand ACS' core business by competing more effectively in the ISR and EW markets; adding content and services to the defense and intelligence programs and platforms in which we currently participate or could participate in the future; and adding an ISR platform company that we can build around in our MFS business. Our recent acquisition of LNX supports all three of these objectives. Adding LNX to our business significantly strengthens our product portfolio in radio frequency and our capabilities in signals intelligence and EW. LNX's position as a key supplier to the prime defense contractor under the JCREW 3.3 program significantly increases our content on that platform. We believe that LNX's technology and market presence could also strengthen our MFS business.

Rapidly Scale MFS to Provide Fully Integrated Sub-systems for ISR Applications in Classified Programs. Through MFS, we intend to become a services-led, best-of-breed ISR sub-systems provider to our prime defense contractors for classified programs. Through the addition of key personnel, high-level security clearances and new defense and

Table of Contents

intelligence community customers, MFS will provide us access to critical classified government intellectual property that we can integrate with our existing ACS embedded computing solutions in order to provide fully integrated, platform ready ISR sub-systems. We believe MFS differentiates us from our competitors and places us in a stronger position to serve as the sub-systems architect for next-generation ISR programs and platforms.

Capitalize on Outsourcing and Other Dynamics in the Defense and Intelligence Industries. We are well-positioned to take advantage of several changing dynamics in the defense industry. Prime defense contractors are increasingly being awarded firm fixed price contracts. These contracts shift risk to the prime contractors, and as a result they are beginning to outsource increasing levels of sub-system development and production and other higher value program content. In addition, the U.S. government is shifting toward shorter program timelines, which require increased flexibility and responsiveness from prime contractors. Finally, more programs are moving to open systems architectures encompassing best-of-breed capabilities. We believe that these dynamics will result in prime contractors outsourcing increasing levels of program content to us as a best-of-breed provider of differentiated products, sub-systems engineering services and system integration.

Leverage Our Research and Development Efforts to Anticipate Market Needs and Maintain our Technology Leadership. Our high performance, quick reaction ISR sub-systems and capabilities require increasingly more sophisticated hardware, software and middleware technology. In addition, as the defense and intelligence industries shift to ISR products with open systems architecture, we believe that our software expertise will become increasingly important and differentiate us from many of our competitors. We have substantially and will continue to refresh both our signal processing and multicomputer product lines while increasing our product development velocity. Faster product development velocity aligns us with the U.S. government's demands on the prime defense contractors for quick reaction capabilities. By shortening our product development times, we have been able to quickly launch the products we need to win new designs from the prime contractor community that will ultimately generate bookings and revenue for us. We intend to continue to utilize company and customer-funded research and development, as well as our acquisition strategy, to develop technologies, products and solutions that have significant potential for near-term and long-term value creation in both the defense and intelligence markets. We devote significant resources in order to anticipate the future requirements in our target defense and intelligence markets, including monitoring and pioneering advances in advanced embedded computing hardware and software, anticipating changes in U.S. government spending and procurement practices and leveraging insight from direct interaction with our customers.

Our Competitive Strengths

We believe the following competitive strengths will allow us to take advantage of the evolving trends in our industry and successfully pursue our business strategy:

Best-of-Breed Sub-System Solutions Provider for the C4ISR Market. Through our commercially developed, high performance embedded signal processing solutions, we address the challenges associated with the collection and processing of massive, continuous streams of data and dramatically shorten the time that it takes to give information to U.S. armed forces at the tactical edge. Our solutions are specifically designed for flexibility and interoperability, allowing our products to be easily integrated into larger system-level solutions. Our ability to integrate sub-system-level capabilities allows us to provide solutions that most effectively address the mission-critical challenges within the C4ISR market, including multi-intelligence data fusion and intelligence processing onboard the platform.

Diverse Mix of Stable, High Growth Programs Aligned with DoD Funding Priorities. Our products have been deployed in approximately 300 different programs with over 25 different prime contractors. We serve high priority markets for the DoD and foreign militaries, such as UAVs, ballistic missile defense, airborne reconnaissance, EW and jamming of IEDs, and have secured positions on mission-critical programs including Aegis, Predator and Reaper UAVs, F-35 Joint Strike Fighter, Patriot missile, JCREW 3.3 and SEWIP. In addition, we consistently leverage our technology and capability across 15 to 20 programs on an annual basis, providing significant operating leverage and cost savings.

Value-Added Sub-System Solution Provider for Prime Defense Contractors. The DoD's shift towards a firm fixed price contract procurement model is pushing prime defense contractors to pursue outsourcing opportunities to mitigate the increased program and financial risk. Our differentiated advanced signal processing solutions offer meaningful capabilities upgrades for our customers and enable the rapid, cost-effective deployment of systems to the end customer.

Table of Contents

We believe our open architecture sub-systems offer differentiated signal processing and data fusion capabilities that cannot be easily replicated. Our solutions minimize program risk, maximize application portability, and accelerate customers' time to market.

MFS Enables the Delivery of Platform-Ready Solutions for Classified Programs. MFS was created in fiscal 2008 to enable us to directly pursue systems integration opportunities within the DoD and U.S. intelligence community. We believe the development work through MFS will provide us access to key classified government intellectual property, including critical intelligence and signal processing algorithms. We believe that MFS also provides us the opportunity to directly integrate this intellectual property onto our existing advanced computing solutions, enabling us to deliver platform-ready integrated ISR sub-systems that leverage our open architecture solutions and address key government technology and procurement concerns.

Long-Standing Industry Relationships. We have established long-standing relationships with prime defense contractors, the U.S. government and other key organizations in the defense and intelligence industries over our 30 years in the defense electronics industry. Our customers include The Boeing Company, Lockheed Martin Corporation, Northrop Grumman Corporation, and Raytheon Company, many of whom have been valued and loyal customers for more than a decade. Over this period, we have become recognized for our ability to develop new technologies and meet stringent program requirements. Our demonstrated track record of delivering high-performance embedded signal processing solutions helped us to acquire new customers, such as ITT Electronic Systems, for whom we are providing the processing content on the JCREW 3.3 counter-IED program. We believe we are well-positioned to maintain these high-level customer engagements.

Proven Management Team. Over the past several years, our senior management team has refocused the Company on its economic core, developed a long-term compelling strategy for the defense market and restored profitability to the business. Having completed these critical steps to rebuild the Company and with a senior management team with significant experience in growing and scaling businesses, both through operating execution and acquisitions, we believe that we have demonstrated our operational capabilities and we are well-positioned for the next phase to transform, grow and scale our business.

Our Solutions and Products

Services and Systems Integration

As part of our strategy, we are continuing to invest in our SSI capability. Our SSI group is tasked with partnering with prime defense contractors to deliver sub-system level engineering expertise as well as ongoing systems integration services. Our SSI capability addresses our strategy to capitalize on the \$2.7 billion sub-system market within the defense embedded electronics market segment.

As the U.S. government mandates more outsourcing and open standards, a major shift is occurring within the prime defense contractors toward procurement of integrated sub-systems that enable quick application level porting through standards-based methodologies. We believe that our core expertise in this area is well aligned to capitalize on this trend. By leveraging our open architecture and high performance modular product set, we provide prime defense contractors with rapid deployment and quick reaction capabilities through our professional services and systems integration offerings. This results in less risk for the prime defense contractors, shortened development cycles, quicker solution deployment and reduced lifecycle costs.

Software Products

We actively design, market and sell complete software and middleware environments to accelerate development and execution of complex signal and image processing applications on a broad range of heterogeneous, multi-computing platforms. Our software suite is based on open standards and includes heterogeneous processor support with extensive high performance math libraries, multi-computing fabric support, net-centric and system management enabling services, extended operating system services, board support packages and development tools. This set of software and middleware provides customer algorithm level portability across rapidly evolving hardware processor types with math and input/output, or I/O, interfaces running at industry leading performance rates. In order to develop, test and integrate

Table of Contents

software ahead of hardware availability, we have invested in the notion of a Virtual Multi-Computer which we have branded Virtual ARS (Application Ready Sub-system). The Virtual ARS model allows for concurrent engineering internally and with customers to accelerate time to deployment, improve quality and reduce development costs. In some cases, these software products are bundled together with broader solutions including hardware and/or services, while in other cases they are licensed separately.

Our multi-computer software packages are marketed and licensed under the *MultiCore Plus*® registered trademark. These software products are a key differentiator for our systems business and represent only a modest amount of stand-alone revenue. We generally charge a user-based development license fee and bundle software run-time licenses with our hardware. We offer a standards-based software value proposition to our customers and provide this offer through several integrated software packages and service offerings.

Hardware Products

We offer a broad family of products designed to meet the full range of requirements in compute-intensive, signal processing and image processing applications, multi-computer interconnect fabrics, sensor interfaces and command and control functions. To maintain a competitive advantage, we seek to leverage technology investments across multiple product lines. We are also influential in the industry-standard organizations associated with our market segments. For example, we started the OpenVPX initiative with the goal of providing customers with multi-vendor interoperable hardware built to well-defined system standards.

Our hardware products are typically compute-intensive and require extremely high inter-processor bandwidth and high I/O capacity. These systems often must also meet significant size, weight and power constraints for use in aircraft, UAVs, ships and other vehicles, and be ruggedized for use in highly demanding use environments. They are used in both commercial industrial applications, such as ground radar air traffic control, and advanced defense applications, including space-time adaptive processing, synthetic aperture radar, airborne early warning, command control communication and information systems, mission planning, image intelligence and signal intelligence systems. Our products transform the massive streams of digital data created in these applications into usable information in real time. The systems can scale from a few processors to thousands of processors.

To address the current challenges facing the war fighter, our government and prime defense contractors, we have developed a new product architecture that supports a more dynamic, iterative, spiral development process by leveraging open architecture standards and leading-edge commercial technologies and products. Configured and productized as integrated sub-systems, customers can rapidly and cost-effectively port and adapt their applications to changing threats.

Our open architecture is carried throughout our entire Ensemble product line from the very small form-factor sub-systems to the high-end, where ultimate processing is of paramount importance to the mission. Our commercially developed hardware and software product capabilities cover the entire ISR spectrum from acquisition and digitization of the signal, to processing of the signal, through the exploitation and dissemination of the information.

Research and Product Development

Our research and development efforts are focused on developing new products and systems as well as enhancing existing hardware and software products in signal and image processing. Our research and development goal is to fully exploit and maintain our technological lead in the high-performance, real-time signal processing industry.

Expenditures for research and development amounted to \$41.5 million in fiscal 2010, \$42.4 million in fiscal 2009, and \$45.2 million in fiscal 2008. As of December 31, 2010, we had 206 employees, including hardware and software architects and design engineers, primarily engaged in engineering and research and product development activities. These individuals, in conjunction with our sales team, also devote a portion of their time to assisting customers in utilizing our products, developing new uses for these products and anticipating customer requirements for new products.

Table of Contents

Services and Systems Integration

As part of our strategy, ACS is investing in the continued build out of our services and systems integration, or SSI, capability. Our SSI group is tasked with partnering with prime defense contractors to deliver sub-system level engineering expertise as well as ongoing systems integration services. Our SSI capability addresses our strategy to capitalize on the \$2.7 billion sub-system market within the defense embedded electronics market segment.

As the U.S. government mandates more outsourcing and open standards, a major shift is occurring within the prime defense contractors toward procurement of integrated sub-systems that enable quick application level porting through standards based methodologies. We believe that our core expertise in this area is fully aligned to capitalize on this trend. Leveraging our open architecture and high performance product set, we provide prime defense contractors with rapid deployment and quick reaction capabilities, or QRC, through our professional services and systems integration offerings. This results in less risk for the prime defense contractors, shortened development cycles, quicker solution deployment, and reduced lifecycle costs.

Manufacturing

Advanced Computing Solutions

The majority of our sales are produced in International Organization for Standardization, or ISO, 9001:2000 quality system certified facilities. The current scope of delivered hardware products includes commercial and industrial class printed circuit board assemblies (modules) and complex chassis systems. Our manufacturing operations consist primarily of materials planning and procurement, final assembly and test and logistics (inventory and traffic management). We subcontract the assembly and testing of most modules to contract manufacturers in the U.S. to build to our specifications. We currently rely primarily on one contract manufacturer. We have a comprehensive quality and process control plan for each of our products, which include an effective supply chain management program and the use of automated inspection and test equipment to assure the quality and reliability of our products. We perform most post sales service obligations (both warranty and other lifecycle support) in-house through a dedicated service and repair operation.

Although we generally use standard parts and components for our products, certain components, including custom designed ASICs, static random access memory, FPGAs, microprocessors and other third-party chassis peripherals (single board computers, power supplies, blowers, etc.), are currently available only from a single source or from limited sources. With the exception of certain components that have gone end of life, we strive to maintain minimal supply commitments from our vendors and generally purchase components on a purchase order basis as opposed to entering into long-term procurement agreements with vendors. We have generally been able to obtain adequate supplies of components in a timely manner from current vendors or, when necessary to meet production needs, from alternate vendors. We believe that, in most cases, alternate vendors can be identified if current vendors are unable to fulfill needs.

Mercury Federal Systems

As of December 31, 2010, MFS did not manufacture hardware. All hardware (e.g. computers and computer peripherals) is generally procured from our other subsidiaries or third-party suppliers.

Competition

Advanced Computing Solutions

The markets for our products are highly competitive and are characterized by rapidly changing technology, frequent product performance improvements, increasing speed of deployment to align with warfighters' needs, and evolving industry standards and requirements coming from our customers or the DoD. Competition typically occurs at the design stage of a prospective customer's product, where the customer evaluates alternative technologies and design approaches.

Table of Contents

The principal competitive factors in our market are price/performance value proposition, available new products at the time of design win engagement, services and systems integration capability, effective marketing and sales efforts, and reputation in the market. Our competitive strengths include innovative engineering in both hardware and software products, sub-system design expertise, advanced packaging capability to deliver the most optimized size, weight and power solution possible, our ability to rapidly respond to varied customer requirements, and a track record of successfully supporting many high profile programs in both the commercial and defense markets. There are a limited number of competitors across the market segments and application types in which we compete. Some of these competitors are larger and have greater resources than us. Some of these competitors compete against us at purely a board-level, others at a sub-system level. The DoD as well as the prime defense contractors are pushing for more outsourcing of sub-system designs to mitigate risk and to enable concurrent design of the platform which ultimately leads to faster time to deployment. We are aligning our strategy to capitalize on that trend and leveraging our long standing sub-system expertise to provide this value to our customers.

A design win usually ensures, but does not always guarantee, that a customer will purchase our product until the next-generation system is developed. We believe that our future ability to compete effectively will depend, in part, upon our ability to improve product and process technologies, to develop new technologies, to maintain the performance advantages of products and processes relative to competitors, to adapt products and processes to technological changes, to identify and adopt emerging industry standards and to adapt to customer needs.

Mercury Federal Systems

The markets for our products and services are highly competitive and primarily focus on providing services to the federal contracting markets. MFS is focused on developing advanced solutions for emerging ISR system processing challenges in the federal space. Our targets are existing programs that are confronting modernization challenges and planned programs yet to be fielded. Our goal is to produce open, commercial item-based processing solutions that are platform agnostic.

Due to the competitive environment in which MFS operates, price and past performance are becoming as important as technical quality in most awards. Our primary competitors for our federal services are other small to large service-based companies that have long-standing customer relationships and program insights. We also face additional competition from platform and sensor developers that will continue to offer the government custom solutions packaged to support individual platform designs and point solution concepts. These companies, large and small, will want to maintain configuration control of compute processing architectures across their platforms in order to control systems upgrade and out-year modernization efforts. To win business, we will continue to offer program managers an alternative path to achieving interoperability and advanced processing dominant solutions.

Intellectual Property and Proprietary Rights

As of December 31, 2010, we held 39 patents of varying duration issued in the United States. We regularly file U.S. patent applications and, where appropriate, foreign patent applications. We also file continuations to cover both new and improved designs and products. At present, we have several U.S. and foreign patent applications in process.

We also rely on a combination of trade secret, copyright, and trademark laws, as well as contractual agreements, to safeguard our proprietary rights in technology and products. In seeking to limit access to sensitive information to the greatest practical extent, we routinely enter into confidentiality and assignment of invention agreements with each of our employees and consultants and nondisclosure agreements with our key customers and vendors.

Backlog

As of December 31, 2010, we had a backlog of orders aggregating approximately \$96.8 million, of which \$82.2 million is expected to be delivered within the next twelve months. As of December 31, 2009, backlog was approximately \$104.1 million. We include in our backlog customer orders for products and services for which we have accepted signed purchase orders as long as that order is scheduled to ship or invoice in whole or in part within the next 24 months. Orders included in backlog may be canceled or rescheduled by customers, although the customer may incur

Table of Contents

cancellation penalties depending on the timing of the cancellation. A variety of conditions, both specific to the individual customer and generally affecting the customer's industry, may cause customers to cancel, reduce or delay orders that were previously made or anticipated. We cannot assure the timely replacement of canceled, delayed or reduced orders. Significant or numerous cancellations, reductions or delays in orders by a customer or group of customers could materially and adversely affect our results of operations or our ability to predict future revenues. Backlog should not be relied upon as indicative of our revenues for any future period.

Employees

At December 31, 2010, we employed a total of 549 people, including 206 in research and development, 98 in sales and marketing, 139 in manufacturing and customer support and 106 in general and administrative functions. We have ten employees located in Europe, four located in Japan, and 535 located in the United States. We do not have any employees represented by a labor organization, and we believe that our relations with our employees are good.

S-72

Table of Contents**Management**

Our current board of directors and management team is composed of the following:

Name	Age	Title
Mark Aslett	42	President and Chief Executive Officer, Director
Robert E. Hult	63	Senior Vice President, Chief Financial Officer and Treasurer
Gerald M. Haines II	48	Senior Vice President, Corporate Development, Chief Legal Officer and Secretary
Craig A. Saline	63	Senior Vice President, Human Resources
Charles A. Speicher	51	Vice President, Controller, and Chief Accounting Officer
Didier M.C. Thibaud	49	Senior Vice President and General Manager, Advanced Computing Solutions
James K. Bass	53	Director
George W. Chamillard	71	Director
Michael A. Daniels	64	Director
George K. Muellner	67	Director
William K. O'Brien	69	Director
Lee C. Steele	61	Director
Vincent Vitto	69	Director

Executive Officers

Mark Aslett, age 42, joined Mercury in 2007 and has served as the President and Chief Executive Officer since that date, and served as a member of the Board since 2007. Prior to joining Mercury, he was Chief Operating Officer and Chief Executive Officer of Enterasys Networks from 2003 to 2006, and held various positions with Marconi plc and its affiliated companies, including Executive Vice President of Marketing, Vice President of Portfolio Management, and President of Marconi Communications North America, from 1998 to 2002. Mr. Aslett has also held positions at GEC Plessey Telecommunications, as well as other telecommunications-related technology firms.

Robert E. Hult, age 63, joined Mercury in 2004, and has served as Senior Vice President, Chief Financial Officer and Treasurer since that date. From 2005 to 2006, he also assumed additional responsibilities for our manufacturing operations/supply chain and customer service and support. Prior to joining Mercury, he was Senior Vice President, Chief Financial Officer and Treasurer of NMS Communications Corporation from 1998 to 2003. Prior to that, he was employed by Digital Equipment Corporation for more than 25 years in positions of increasing responsibility within the company's corporate and regional finance groups.

Gerald M. Haines II, age 47, joined Mercury in July 2010 as Senior Vice President, Corporate Development, Chief Legal Officer, and Secretary. Prior to joining Mercury, from January 2008 to June 2010, Mr. Haines was Executive Vice President, Chief Legal Officer and Secretary at Verenum Corporation, a publicly traded company engaged in the development and commercialization of cellulosic biofuels and high performance specialty enzymes. From September 2006 to December 2007, he was an advisor to early-stage companies on legal and business matters. From May 2001 to August 2006, Mr. Haines served as Executive Vice President of Strategic Affairs, Chief Legal Officer and Secretary of Enterasys Networks, Inc., a public network communications company that was taken private in March 2006 following a successful business restructuring and turnaround. Prior to Enterasys Networks, Mr. Haines served as Senior Vice President and General Counsel of Cabletron Systems, Inc., the predecessor of Enterasys Networks. Before Cabletron, he was Vice President and General Counsel of the largest manufacturer of oriented polypropylene packaging and labeling films in North America, and prior to that was in private practice as a corporate attorney in a

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

large Boston law firm. Mr. Haines is admitted to practice in Massachusetts, Maine, and the Federal District of Massachusetts.

S-73

Table of Contents

Craig A. Saline, age 63, joined Mercury in 2004, and has served as Senior Vice President, Human Resources since 2005. Prior to joining Mercury, he was interim Vice President, Human Resources of Tufts New England Medical Center in 2002. Prior to that, he was Senior Vice President, Human Resources of World Kitchen, Inc., from 2000 to 2002. From 1997 to 2000, he was Senior Vice President, Human Resources, North American region for Reckitt Benckiser, Inc. He held the Senior Vice President, Human Resources Leadership positions at Teledyne, Inc. from 1996 to 1997 and at Marshalls, Inc. from 1992 to 1996. Prior to that, he held various senior human resources positions at General Electric Company.

Charles A. Speicher, age 51, joined Mercury in September 2010 as Vice President, Controller, and Chief Accounting Officer. Prior to assuming his position with Mercury, Mr. Speicher had been Vice President of Business Operations and Enterprise Risk Management at Virtusa Corporation, a publicly-traded global IT services company, since December 2009. From September 2001 to December 2009, he was Vice President Global Accounting Operations and Corporate Controller at Virtusa Corporation. Mr. Speicher was Corporate Controller at Cerulean Technologies Inc., a private software product company, from 1996 to 2000 prior to its sale to Aether Systems Inc. where he served as Division Controller of Aether Mobile Government from 2000 to 2001.

Didier M.C. Thibaud, age 49, joined Mercury in 1995, and has served as Senior Vice President and General Manager, Advanced Computing Solutions since July 2007. Prior to that, he was Senior Vice President, Defense & Commercial Businesses from 2005 to June 2007 and Vice President and General Manager, Imaging and Visualization Solutions Group, from 2000 to 2005 and served in various capacities in sales and marketing from 1995 to 2000.

Directors

Mark Aslett, age 42, joined Mercury in 2007 and has served as the President and Chief Executive Officer since that date and served as a member of the Board since 2007. Prior to joining Mercury, he was Chief Operating Officer and Chief Executive Officer of Enterasys Networks from 2003 to 2006, and held various positions with Marconi plc and its affiliated companies, including Executive Vice President of Marketing, Vice President of Portfolio Management, and President of Marconi Communications North America, from 1998 to 2002. Mr. Aslett has also held positions at GEC Plessey Telecommunications, as well as other telecommunications-related technology firms.

James K. Bass, age 53, joined Mercury in 2010 and has served as a director of TTM Technologies, Inc., a publicly-traded global printed circuit board manufacturer, since September 2000. From September 2005 to June 2009, Mr. Bass served as the Chief Executive Officer and a director of Piper Aircraft, Inc., a general aviation manufacturing company. He served as the Chief Executive Officer and a director of Suntron Corporation, a provider of high mix electronic manufacturing services, from its incorporation in May 2001 until May 2005, and as Chief Executive Officer of EFTC Corporation, a subsidiary of Suntron Corporation, from July 2000 until April 2001. From 1992 to July 2000, Mr. Bass was a Senior Vice President of Sony Corporation. Prior to that, Mr. Bass spent 15 years in various manufacturing management positions at the aerospace group of General Electric Corporation. Mr. Bass' qualifications to serve on our Board of Directors include his extensive experience in the technology marketplace, his executive and operational experience as the Chief Executive Officer of a public company, and his broad experience with accounting and audit matters for publicly-traded companies.

George W. Chamillard, age 71, joined Mercury in 2004, and served as Chairman of the Board of Directors of Teradyne, Inc., a public company supplying automatic test equipment, from 2000 to his retirement in 2006, and as a member of the Board of Directors of Teradyne from 1996 until 2006. Mr. Chamillard served as Chief Executive Officer of Teradyne from 1997 to 2004, and as President of Teradyne from 1996 to 2003. Prior to being named as President of Teradyne, Mr. Chamillard served in various executive capacities at Teradyne. Mr. Chamillard's qualifications to serve on our Board of Directors include his years of executive experience in the technology industry, including being the Chairman and Chief Executive Officer of a public technology company.

Michael A. Daniels, age 64, joined Mercury in 2010 and served as Chairman of the Board of Mobile 365, Inc. from May 2005 to November 2006 and served as its Chief Executive Officer from December 2005 to August 2006. Sybase acquired Mobile 365, Inc. in November 2006 and renamed it Sybase 365, Inc. Mr. Daniels was a director of Sybase, a publicly-traded global enterprise software and services company, from 2007 until its acquisition by SAP in 2010. From

Table of Contents

December 1986 to May 2004, Mr. Daniels served in a number of senior executive positions at Science Applications International Corporation (SAIC), a publicly-traded scientific, technical, and professional services firm, including Sector Vice President from February 1994 to May 2004. Mr. Daniels served as Chairman and Chief Executive Officer of Network Solutions, Inc., an internet company, from March 1995 to June 2000 when Verisign purchased Network Solutions. From June 2007 to July 2009, Mr. Daniels served on the Board of Directors of Luna Innovations, a high technology manufacturer. Mr. Daniels' qualifications to serve on our Board of Directors include his extensive executive experience in the technology industry and experience serving as a director of public companies, including software and technology companies.

George K. Muellner, age 67, joined Mercury in 2010, and served as the President of Advanced Systems for the Integrated Defense Systems business unit of The Boeing Company, responsible for developing advanced cross-cutting concepts and technologies, and executing new programs, until his retirement in February 2008. Prior to this assignment, he was Vice President-General Manager of Air Force Systems at Boeing since July 2002. He joined Boeing in 1998. Prior to that, he served 31 years in the U.S. Air Force, retiring as a lieutenant general from the position of Principal Deputy for the Office of the Assistant Secretary of the Air Force for Acquisition in Washington, D.C. A highly decorated veteran, Mr. Muellner spent most of his career as a fighter pilot and fighter weapons instructor, test pilot, and commander. Mr. Muellner's qualifications to serve on our Board of Directors include his executive experience with defense contracting, his military experience in our target defense market, and his knowledge of defense and aerospace technology.

William K. O'Brien, age 69, joined Mercury in 2008 and served as Executive Chairman at Enterasys Networks, a public technology company, from 2003 until his retirement in 2006. He served as Chief Executive Officer of Enterasys from 2002 to 2004, and as a member of the Board of Directors of Enterasys from 2002 to 2006. Prior to working at Enterasys, he worked for PricewaterhouseCoopers where he held several different senior management positions. Mr. O'Brien had over 33 years of experience in auditing and professional services while at PricewaterhouseCoopers. He has been a director of Virtusa Corporation, a publicly-traded company, since 2008. Mr. O'Brien is one of our audit committee financial experts. Mr. O'Brien's qualifications to serve on our Board of Directors include his executive experience in the technology industry, including being the Chairman and Chief Executive Officer of a public technology company, and his strong accounting and financial expertise.

Lee C. Steele, age 61, joined Mercury in 2003 and has been a Financial Leadership Partner with Tatum LLC, an executive services and consulting firm (and a subsidiary of Spherion Corporation following its acquisition of Tatum in 2010), since 2002. From 2001 to 2002, he was Senior Vice President, Chief Financial Officer, and Treasurer of ARIAD Pharmaceuticals, Inc., a development stage biopharmaceuticals firm. From 1994 to 2001, he was Vice President, Chief Financial Officer, and Treasurer of American Science and Engineering, Inc., a manufacturer of high-technology security systems and medical devices. Prior to that, he was a consulting partner with Deloitte & Touche. Mr. Steele is one of our audit committee financial experts and the Chair of the Audit Committee. Mr. Steele's qualifications to serve on our Board of Directors include his strong accounting and financial expertise and his executive experience as Chief Financial Officer of a publicly-traded company.

Vincent Vitto, age 69, joined Mercury in 2006 and served as President and Chief Executive Officer of The Charles Stark Draper Laboratory, Inc., a research and development laboratory, from 1997 to his retirement in 2006. Prior to that, he spent 32 years of increasing responsibility at MIT Lincoln Laboratory, a research and development laboratory, rising to Assistant Director for Surface Surveillance and Communications. Mr. Vitto's qualifications to serve on our Board of Directors include his exceptional understanding of defense technology, particularly related to surveillance and communications, and experience managing major defense research laboratories.

Corporate Governance

Independence

The Board of Directors has determined that a majority of the members of the Board should consist of independent directors, determined in accordance with the applicable listing standards of The NASDAQ Global Select Market as in effect from time to time. Directors who are also Mercury employees are not considered to be independent for this purpose. For a non-employee director to be considered independent, he or she must not have any direct or indirect material relationship with Mercury. A material relationship is one which, in the opinion of the Board, would interfere with

Table of Contents

the exercise of independent judgment in carrying out the responsibilities of a director. In determining whether a material relationship exists, the Board considers, among other things, the circumstances of any direct compensation received by a director or a member of a director's immediate family from Mercury, any professional relationship between a director or a member of a director's immediate family and Mercury's outside auditors, any participation by a Mercury executive officer in the compensation decisions of other companies employing a director or a member of a director's immediate family as an executive officer, and commercial relationships between Mercury and other entities with which a director is affiliated (as an executive officer, partner, or controlling shareholder).

In addition, the Board has determined that directors who serve on the Audit Committee must qualify as independent under the applicable rules of the SEC, which limit the types of compensation an Audit Committee member may receive directly or indirectly from Mercury and require that Audit Committee members not be affiliated persons of Mercury or its subsidiaries. Consistent with these considerations, the Board has determined that all of the members of the Board are independent directors, except Mr. Aslett, who is also a Mercury executive officer.

Standing Committees

The Board of Directors has standing Audit, Compensation, and Nominating and Governance Committees. As described above, all of the members of the Audit, Compensation, and Nominating and Governance Committees are deemed to be independent directors. Each of these committees acts under a written charter, copies of which can be found on our website at www.mc.com on the Investor Relations page (which appears under the heading About Us) under Corporate Governance.

Audit Committee

The Audit Committee assists the Board in its oversight of management's conduct of our accounting and financial reporting processes, including by providing oversight with respect to the financial reports and other financial information provided by our systems of internal accounting and financial controls, and the annual audit of our financial statements. The Audit Committee also reviews the qualifications, independence, and performance of our independent registered public accounting firm, pre-approves all audit and non-audit services provided by such firm and its fees, and discusses with management and our independent registered public accounting firm the quality and adequacy of our internal control over financial reporting. The Audit Committee is directly responsible for the appointment, compensation, retention, and oversight of the work of our independent registered public accounting firm, which reports directly to the Audit Committee. The Audit Committee also is responsible for reviewing and approving related-person transactions in accordance with our Code of Business Conduct and Ethics and the Audit Committee charter.

During fiscal 2011, the members of the Audit Committee are Mr. Steele (Chairman), Mr. Bass and Mr. O'Brien. The Board has determined that each of Mr. Steele and Mr. O'Brien qualifies as an audit committee financial expert under SEC rules.

Compensation Committee

The Compensation Committee is responsible for:

- n setting the compensation of our executive officers;
- n reviewing and approving employment agreements, consulting arrangements, severance or retirement arrangements, and change-in-control arrangements or provisions covering any of our current or former executive officers;
- n overseeing the administration of our equity-based and other long-term incentive plans;
- n exercising any fiduciary, administrative, or other function assigned to the committee under any of our health, benefit, or welfare plans, including our 401(k) retirement savings plan; and

- n reviewing the compensation and benefits for non-employee directors and making recommendations for any changes to our Board.

S-76

Table of Contents

All of the independent directors on the Board annually review and approve our CEO's corporate financial and individual management-by-results, referred to as MBR, performance objectives, and evaluate the CEO's performance in light of those goals and objectives. Based on the foregoing, the Compensation Committee sets the CEO's compensation, including salary, target bonus, bonus and over-achievement payouts, and equity-based compensation, and any other special or supplemental benefits, which is then subject to ratification by a majority of the independent directors on our Board. Our CEO annually evaluates the contribution and performance of our other executive officers and provides input to the Compensation Committee, and the Compensation Committee sets their compensation. Our Senior Vice President, Human Resources, and the Compensation Committee's compensation consultant also make recommendations to the Compensation Committee regarding compensation for our executives.

The Compensation Committee may delegate to the CEO the authority to grant equity awards under the 2005 Stock Incentive Plan, as amended and restated to individuals who are not subject to the reporting and other requirements of Section 16 of the Exchange Act or covered employees within the meaning of Section 162(m) of the Internal Revenue Code of 1986, as amended (the Code). The Compensation Committee may also delegate the administration of the health, benefit, and welfare plans within the scope of its oversight to our corporate benefits and finance departments and to outside service providers, as appropriate.

Our Senior Vice President, Human Resources, and the Compensation Committee's compensation consultant provide input to the Compensation Committee regarding compensation for non-employee directors. The Compensation Committee then recommends any changes in the compensation and benefits for non-employee directors to the full Board for its consideration and approval.

The Compensation Committee is authorized to obtain advice and assistance from independent compensation consultants, outside legal counsel, and other advisors as it deems appropriate, at our expense. The Compensation Committee has engaged Aon Consulting/Radford, or Radford, since 2005 to assist the committee in applying our compensation philosophy for our executive officers and non-employee directors, analyzing current compensation conditions in the marketplace generally and among our peers specifically, and assessing the competitiveness and appropriateness of compensation levels for our executive officers. Representatives of Radford periodically attend meetings of the Compensation Committee, both with and without members of management present, and interact with members of our human resources department with respect to its assessment of the compensation for our executive officers. In addition, at the direction of the Compensation Committee, Radford may assist management in analyzing the compensation of our non-executive employees. For fiscal 2010, Radford's services were limited to providing compensation survey data for non-employee directors, executives, and non-executive employees.

During fiscal 2011, the members of the Compensation Committee are Mr. Chamillard (Chairman), Mr. Daniels and Mr. Muellner.

Nominating and Governance Committee

The Nominating and Governance Committee assists the Board in identifying individuals qualified to become Board members, and recommends to the Board persons to be nominated for election as directors by the shareholders at the annual meeting of shareholders or by the Board to fill vacancies. The committee has recommended the nominees for election at the meeting. In addition, the committee oversees the process by which the Board assesses its effectiveness. During fiscal 2011, the members of the Nominating and Governance Committee are Mr. O'Brien (Chairman), Mr. Steele and Mr. Vitto.

Table of Contents**Principal Stockholders**

On December 31, 2010, there were 23,228,727 shares of our common stock outstanding. On that date, to our knowledge, there were six shareholders who owned beneficially more than 5% of our common stock. The table below contains information, as of the dates noted below, regarding the beneficial ownership of these persons or entities. The Percent of Class was calculated using the number of shares of our common stock outstanding as of December 31, 2010. Unless otherwise indicated, we believe that each of the persons or entities listed below has sole voting and investment power with respect to all of the shares of common stock indicated.

Name of Beneficial Owner	Number of Shares Beneficially Owned	Percent of Class
Royce & Associates, LLC ⁽¹⁾	2,940,849	12.66%
Barrow, Hanley, Mewhinney & Strauss, Inc. ⁽²⁾	1,621,053	6.98%
Renaissance Technologies LLC ⁽³⁾	1,529,935	6.59%
Black Rock, Inc. ⁽⁴⁾	1,826,985	7.87%
Soros Fund Management LLC ⁽⁵⁾	1,338,466	5.76%
Dimensional Fund Advisors LP ⁽⁶⁾	1,305,996	5.62%

⁽¹⁾ Based on a Schedule 13G/A filed with the SEC on January 18, 2011, reporting beneficial ownership as of December 31, 2010. The reporting entity's address is 745 Fifth Avenue, New York, New York 10151.

⁽²⁾ Based on a Schedule 13G filed with the SEC on February 8, 2010, reporting beneficial ownership as of December 31, 2009. The filing reported sole voting power with respect to 692,320 shares, shared voting power with respect to 928,733 shares, and sole investment power with respect to 1,621,053 shares. The reporting entity's address is 2200 Ross Avenue, 31 Floor, Dallas, Texas 75201.

⁽³⁾ Based on a Schedule 13G/A filed by Renaissance Technologies LLC and James H. Simons with the SEC on February 12, 2010, reporting beneficial ownership as of December 31, 2009. The filing reported sole voting power with respect to 1,476,001 shares, sole investment power with respect to 1,507,418 shares, and shared investment power over 22,517 shares. The address of the reporting persons is 800 Third Avenue, New York, New York 10022.

⁽⁴⁾ Based on a Schedule 13G filed by Black Rock, Inc. with the SEC on January 20, 2010, reporting beneficial ownership as of December 31, 2009. The reporting entity's address is 40 East 52nd Street, New York, New York 10022.

⁽⁵⁾ Based on a Schedule 13G/A filed by Soros Fund Management LLC, George Soros, Robert Soros, and Jonathan Soros with the SEC on February 16, 2010, reporting beneficial ownership as of December 31, 2009. The reporting entities' address is 888 Seventh Avenue, 3rd Floor, New York, New York 10106.

- ⁽⁶⁾ Based on a Schedule 13G/A filed with the SEC on February 10, 2010, reporting beneficial ownership as of December 31, 2009. The filing reported sole voting power with regard to 1,276,184 shares and sole investment power with respect to an aggregate of 1,305,996 shares. The reporting entity's address is Palisades West, Building One, 6300 Bee Cave Road, Austin, Texas 78746.

S-78

Table of Contents

Related Party Transactions

In July 2008, we and our former chief executive officer, James Bertelli, entered into an agreement for consulting services through June 30, 2010. The consideration for these services totaled \$190,000 and was paid out over the service period. As of June 30, 2010, we had made payments of \$190,000 for consulting services under this agreement. Additionally, in July 2008, we entered into a five year non-compete agreement with Mr. Bertelli. This agreement, which is carried as an intangible asset on our balance sheet, was valued at \$500,000 and is being amortized over the life of the agreement. As of December 31, 2010, we had made payments of \$500,000 under this non-compete agreement.

S-79

Table of Contents

Material United States Federal Income Tax Considerations for Non-United States

Holders of Common Stock

The following is a summary of the material U.S. federal income tax consequences applicable to non-U.S. holders (as defined below) with respect to the acquisition, ownership and disposition of shares of our common stock. This summary is based on current provisions of the Internal Revenue Code of 1986, as amended, the Treasury regulations promulgated thereunder, administrative rulings and judicial opinions, all of which are subject to change, possibly with retroactive effect. We have not sought any ruling from the U.S. Internal Revenue Service, or the IRS, with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS will agree with such statements and conclusions.

This summary is limited to non-U.S. holders (as defined below) who purchase shares of our common stock pursuant to this offering and who hold the shares as capital assets (generally property held for investment).

This discussion does not address all aspects of U.S. federal income taxation that may be important to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances, nor does it address any aspects of tax considerations arising under the laws of any non-U.S., state or local jurisdiction. This discussion also does not address tax considerations applicable to a non-U.S. holder subject to special treatment under the U.S. federal income tax laws, including without limitation:

- n banks, insurance companies or other financial institutions;
 - n partnerships or other pass-through entities;
 - n tax-exempt organizations;
 - n tax-qualified retirement plans;
 - n dealers in securities or currencies;
 - n U.S. expatriates and certain former citizens or long-term residents of the United States;
 - n controlled foreign corporations;
 - n passive foreign investment companies;
 - n persons that own, or have owned, actually or constructively, more than 5% of our common stock; and
 - n persons that will hold common stock as a position treated as a hedging transaction, straddle or conversion transaction for tax purposes.
- Accordingly, we urge prospective investors to consult with their own tax advisors regarding the U.S. federal, state, local and non-U.S. income and other tax considerations of acquiring, holding and disposing of shares of our common stock.

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

If a partnership (or other pass-through entity for U.S. federal income tax purposes) is a beneficial owner of our common stock, the tax treatment of a partner in the partnership (or member in such other entity) will generally depend upon the status of the partner and the activities of the partnership. Any partner in a partnership holding shares of our common stock should consult its own tax advisors.

PROSPECTIVE INVESTORS ARE URGED TO CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP OR DISPOSITION OF OUR COMMON STOCK ARISING UNDER THE LAWS OF ANY STATE, LOCAL, NON-U.S. OR OTHER TAXING JURISDICTION OR UNDER ANY APPLICABLE TAX TREATY.

S-80

Table of Contents

Definition of Non-U.S. Holder

In general, a non-U.S. holder is any beneficial owner of our common stock (other than an entity treated as a partnership or disregarded as separate from its owner for U.S. federal income tax purposes) that is not a U.S. person. A U.S. person is any of the following:

- n an individual citizen or resident of the United States;
- n a corporation (or any entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia;
- n an estate, the income of which is includible in gross income for U.S. federal income tax purposes regardless of its source; or
- n a trust if (a) a court within the United States is able to exercise primary supervision over the administration of the trust and one or more U.S. persons (as defined in the Code) have the authority to control all substantial decisions of the trust or (b) it has a valid election in effect under applicable Treasury regulations to be treated as a U.S. person.

Distributions on Our Common Stock

As described in the section titled "Dividend Policy", we currently do not anticipate paying dividends on our common stock in the foreseeable future. If, however, we make cash or other property distributions on our common stock, or effect one of certain redemptions that are treated as distributions with respect to our common stock, then any such distributions or redemptions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current earnings and profits for that taxable year or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a tax-free return of capital to the extent of the holder's adjusted tax basis in the common stock and will be applied against and reduce that basis. Any excess will be treated as gain realized on the sale or other disposition of the common stock and will be treated as described under the section titled "Gain on Sale or Other Disposition of Our Common Stock" below.

Except as described in the next paragraph, dividends paid to a non-U.S. holder of our common stock generally will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends, or a lower rate specified by an applicable income tax treaty. To receive the benefit of a reduced treaty rate, a non-U.S. holder must furnish to us or our paying agent or withholding agent a valid IRS Form W-8BEN (or applicable successor form) certifying, under penalties of perjury, such holder's qualification for the reduced rate. This certification must be provided to us or our paying agent or other withholding agent prior to the payment of dividends and may be required to be updated periodically. Special certification and other requirements apply if our common stock is held through a non-U.S. intermediary including non-U.S. pass-through entities. Non-U.S. holders that do not timely provide us or our paying agent or other withholding agent with the required certification, but that qualify for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

If a non-U.S. holder holds our common stock in connection with the conduct of a trade or business in the United States, and dividends paid on the common stock are effectively connected with such holder's U.S. trade or business (and, if required by an applicable income tax treaty, are attributable to a permanent establishment or fixed base maintained by the non-U.S. holder in the United States), the non-U.S. holder will be exempt from U.S. federal withholding tax. To claim the exemption, the non-U.S. holder must furnish to us or our paying agent or other withholding agent the required forms, including a properly executed IRS Form W-8ECI (or applicable successor form).

Any dividends paid on our common stock that are effectively connected with a non-U.S. holder's U.S. trade or business (and, if required by an applicable income tax treaty, are attributable to a permanent establishment or fixed base maintained by the non-U.S. holder in the United States) generally will be subject to U.S. federal income tax on a net income basis at the regular graduated U.S. federal income tax rates in the same manner as if such holder were a resident of the United States. A non-U.S. holder that is a non-U.S. corporation (or non-U.S. entity treated as a corporation for U.S. federal income tax purposes) also may be subject to an additional branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of a portion of its effectively connected earnings and profits for the taxable year. Non-U.S. holders should consult any applicable income tax treaties that may provide for different rules.

S-81

Table of Contents

A non-U.S. holder who provides us with an IRS Form W-8BEN or Form W-8ECI must update the form or submit a new form, as applicable, if there is a change in circumstances that makes any information on such form incorrect. A non-U.S. holder that claims the benefit of an applicable income tax treaty generally will be required to satisfy applicable certification and other requirements prior to the distribution date. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

Gain on Sale or Other Disposition of Our Common Stock

Subject to the discussion below regarding backup withholding, a non-U.S. holder generally will not be subject to U.S. federal income tax on any gain realized upon the sale or other disposition of our common stock unless:

- n the gain is effectively connected with a trade or business carried on by the non-U.S. holder in the United States and, if required by an applicable income tax treaty, the gain is attributable to a permanent establishment or fixed base of the non-U.S. holder maintained in the United States;
- n the non-U.S. holder is an individual present in the United States for 183 days or more in the taxable year of disposition and certain other requirements are met; or
- n we are or have been a U.S. real property holding corporation, or a USRPHC, for U.S. federal income tax purposes at any time within the shorter of the five-year period preceding the disposition and the non-U.S. holder's holding period for the common stock, and, with respect to a non-U.S. holder who has not actually or constructively held (at any time during the shorter of the five-year period preceding the date of the disposition or the holder's holding period) 5% or more of our common stock, the common stock has ceased to be traded on an established securities market prior to the beginning of the calendar year in which the sale or other disposition occurs.

We believe we currently are not, and we do not anticipate becoming, a USRPHC for U.S. federal income tax purposes. However, no assurance can be offered in this regard.

Gain described in the first or third bullet point above will be subject to U.S. federal income tax on a net income basis at regular graduated U.S. federal income tax rates generally in the same manner as if such holder were a resident of the United States. A non-U.S. holder that is a non-U.S. corporation (or non-U.S. entity treated as a corporation for U.S. federal income tax purposes) also may be subject to an additional branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of a portion of its effectively connected earnings and profits for the taxable year. The gross proceeds from transactions to which the third bullet point above applies will generally be subject to a 10% withholding tax, which may be claimed as a credit against the non-U.S. holder's federal income tax liability. Non-U.S. holders should consult any applicable income tax treaties that may provide for different rules.

Gain described in the second bullet point above will be subject to U.S. federal income tax at a flat 30% rate (or such lower rate specified by an applicable income tax treaty) but may be offset by U.S. source capital losses (even though the individual is not considered a resident of the United States), provided that the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses.

Backup Withholding and Information Reporting

Generally, we must report annually to the IRS and to each non-U.S. holder the amount of dividends and other distributions paid to, and the tax withheld with respect to, each non-U.S. holder, regardless of whether withholding was required. This information also may be made available under a specific treaty or agreement with the tax authorities in the country in which the non-U.S. holder resides or is established. Backup withholding, currently at a 28% rate but scheduled to increase to 31% after 2012, generally will not apply to distributions to a non-U.S. holder of the common stock provided the non-U.S. holder furnishes to us or our paying agent the required certification as to its non-U.S. status, such as by providing a valid Form W-8BEN or Form W-8ECI, or certain other requirements are met. Notwithstanding the foregoing, backup withholding may apply if either we or our paying agent has actual knowledge, or reason to know, that the holder is a U.S. person that is not an exempt recipient.

Table of Contents

Information reporting and, depending on the circumstances, backup withholding will apply to the proceeds of a sale of our common stock within the United States or conducted through certain United States-related financial intermediaries, unless the beneficial owner certifies under penalty of perjury that it is a non-U.S. holder (and the payor does not have actual knowledge or reason to know that the beneficial owner is a United States person as defined under the Code), or such owner otherwise establishes an exemption.

Backup withholding is not an additional tax. Any amounts withheld from a payment to a non-U.S. holder under the backup withholding rules generally can be credited against any U.S. federal income tax liability of the non-U.S. holder, provided that you timely furnish the required information to the IRS.

Foreign Accounts

Legislation enacted in 2010 will impose withholding taxes on certain types of payments made to foreign financial institutions and certain other non-U.S. entities after December 31, 2012 unless those institutions and entities meet additional certification, information reporting and other requirements. The legislation will generally impose a 30% withholding tax on dividends on, or gross proceeds from the sale or other disposition of, our common stock paid to a foreign financial institution unless the foreign financial institution enters into an agreement with the U.S. Treasury to, among other things, (i) undertake to identify accounts held by certain U.S. persons (including certain equity and debt holders of such institution) or by U.S.-owned foreign entities, (ii) annually report certain information about such accounts, and (iii) withhold 30% on payments to account holders whose actions prevent it from complying with these reporting and other requirements. In addition, subject to certain exceptions, the legislation will impose a 30% withholding tax on the same types of payments to an entity that is not a foreign financial institution unless the entity certifies that it does not have any substantial U.S. owners (which generally include any U.S. persons who directly or indirectly own more than 10% of the entity) or furnishes identifying information regarding each such substantial U.S. owner. We will not pay any additional amounts to non-U.S. holders in respect of any amounts withheld. Prospective investors should consult their tax advisors regarding this legislation.

Table of Contents

Underwriting

Subject to the terms and conditions set forth in the underwriting agreement to be dated on or about _____, 2011, among us and the underwriters named below, we have agreed to sell to the underwriters and the underwriters have severally agreed to purchase from us, the number of shares of common stock indicated in the table below:

Underwriter	Number of Shares
Jefferies & Company, Inc.	
Lazard Capital Markets LLC	
Gleacher & Company Securities, Inc.	
Merriman Capital, Inc.	
Morgan Keegan & Company, Inc.	

Total

Jefferies & Company, Inc. and Lazard Capital Markets LLC are acting as joint book-running managers of this offering and as representatives of the underwriters named above.

The underwriting agreement provides that the obligations of the several underwriters are subject to certain conditions precedent such as the receipt by the underwriters of officers' certificates and legal opinions and approval of certain legal matters by their counsel. The underwriting agreement provides that the underwriters will purchase all of the shares if any of them are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the nondefaulting underwriters may be increased or the underwriting agreement may be terminated. We have agreed to indemnify the underwriters and certain of their controlling persons against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriters may be required to make in respect of those liabilities.

The underwriters have advised us that they currently intend to make a market in the shares. However, the underwriters are not obligated to do so and may discontinue any market-making activities at any time without notice. No assurance can be given as to the liquidity of the trading market for the shares.

The underwriters are offering the shares subject to their acceptance of the shares from us and subject to prior sale. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part. In addition, the underwriters have advised us that they do not intend to confirm sales to any account over which they exercise discretionary authority.

Commission and Expenses

The underwriters have advised us that they propose to offer the shares to the public at the initial public offering price set forth on the cover page of this prospectus supplement and to certain dealers at that price less a concession not in excess of \$ _____ per share. The underwriters may allow, and certain dealers may reallow, a discount from the concession not in excess of \$ _____ per share to certain brokers and dealers. After the offering, the initial public offering price, concession and reallowance to dealers may be reduced by the representative. No such reduction will change the amount of proceeds to be received by us as set forth on the cover page of this prospectus supplement.

Table of Contents

The following table shows the per share and total public offering price, the underwriting discounts and commissions that we are to pay the underwriters and the proceeds, before expenses, to us in connection with this offering. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares, as discussed below.

		Total	
	Per Share	Without Option to Purchase Additional Shares	With Option to Purchase Additional Shares
Public offering price	\$	\$	\$
Underwriting discounts and commissions paid by us	\$	\$	\$
Proceeds to us, before expenses	\$	\$	\$

We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately \$.

Option to Purchase Additional Shares

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus supplement, to purchase up to an aggregate of 600,000 additional shares from us at the public offering price set forth on the cover page of this prospectus supplement, less underwriting discounts and commissions. If the underwriters exercise this option, each underwriter will be obligated, subject to specified conditions, to purchase a number of additional shares proportionate to that underwriter's initial purchase commitment as indicated in the table above.

No Sales of Similar Securities

We, our executive officers and our directors have agreed, subject to specified exceptions, not to directly or indirectly:

- n sell, offer, contract or grant any option to sell (including any short sale), pledge, transfer, establish an open put equivalent position within the meaning of Rule 16a-1(h) under the Securities Exchange Act of 1934, as amended, or
- n otherwise dispose of any shares of our common stock, options or warrants to acquire shares of our common stock, or securities exchangeable or exercisable for or convertible into shares of our common stock currently or hereafter owned either of record or beneficially, or
- n publicly announce an intention to do any of the foregoing for a period of 90 days after the date of this prospectus supplement without the prior written consent of Jefferies & Company, Inc. and Lazard Capital Markets LLC.

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

This restriction terminates after the close of trading of the shares of our common stock on and including the 90 days after the date of this prospectus supplement. However, subject to certain exceptions, in the event that either:

- ⁿ during the last 17 days of the 90-day restricted period, we issue an earnings release or material news or a material event relating to us occurs and is publicly disclosed or otherwise becomes publicly known, or
 - ⁿ prior to the expiration of the 90-day restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 90-day restricted period,
- then in either case the expiration of the 90-day restricted period will be extended until the expiration of the 18-day period beginning on the date of the issuance of an earnings release or the occurrence of the material news or event, as applicable, unless Jefferies & Company, Inc. and Lazard Capital Markets LLC waive, in writing, such an extension.

Jefferies & Company, Inc. and Lazard Capital Markets LLC may, in their sole discretion and at any time or from time to time before the termination of the 90-day period, without public notice, release all or any portion of the securities subject to lock-up agreements. There are no existing agreements between the underwriters and any of our shareholders who will execute a lock-up agreement, providing consent to the sale of shares prior to the expiration of the lock-up period.

S-85

Table of Contents

Stabilization

The underwriter has advised us that, pursuant to Regulation M under the Securities Exchange Act of 1934, as amended, certain persons participating in the offering may engage in transactions, including overallotment, stabilizing bids, syndicate covering transactions or the imposition of penalty bids, which may have the effect of stabilizing or maintaining the market price of the shares at a level above that which might otherwise prevail in the open market. Overallotment involves syndicate sales in excess of the offering size, which creates a syndicate short position.

Covered short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares in this offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the option to purchase additional shares.

Naked short sales are sales in excess of the option to purchase additional shares. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in this offering.

A stabilizing bid is a bid for the purchase of shares on behalf of the underwriters for the purpose of fixing or maintaining the price of the shares. A syndicate covering transaction is the bid for or the purchase of shares on behalf of the underwriters to reduce a short position incurred by the underwriters in connection with the offering. A penalty bid is an arrangement permitting the underwriters to reclaim the selling concession otherwise accruing to a syndicate member in connection with the offering if the shares originally sold by such syndicate member are purchased in a syndicate covering transaction and therefore have not been effectively placed by such syndicate member.

Neither we, nor any of the underwriters makes any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our shares. The underwriters are not obligated to engage in these activities and, if commenced, any of the activities may be discontinued at any time.

Electronic Distribution

A prospectus in electronic format may be made available by e-mail or on the web sites or through online services maintained by one or more of the underwriters or their affiliates. In those cases, prospective investors may view offering terms online and may be allowed to place orders online. The underwriters may agree with us to allocate a specific number of shares for sale to online brokerage account holders. Any such allocation for online distributions will be made by the underwriters on the same basis as other allocations. Other than the prospectus in electronic format, the information on the underwriters' web sites and any information contained in any other web site maintained by any of the underwriters is not part of this prospectus, has not been approved and/or endorsed by us or the underwriters and should not be relied upon by investors.

Affiliations

The underwriters and certain of their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The underwriters and certain of their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for the issuer, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriters and certain of their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments of the issuer. The underwriters and certain

Table of Contents

of their respective affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Selling Restrictions

European Economic Area. In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State) an offer to the public of any shares which are the subject of the offering contemplated by this prospectus supplement may not be made in that Relevant Member State except that an offer to the public in that Relevant Member State of any shares may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

(a) to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;

(b) to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than 43,000,000 and (3) an annual net turnover of more than 50,000,000, as shown in its last annual or consolidated accounts;

(c) to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the representatives for any such offer; or

(d) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of the shares shall result in a requirement for the publication by us or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

Each person in a Relevant Member State who receives any communication in respect of, or who acquires any shares under, the offers contemplated in this prospectus supplement will be deemed to have represented, warranted and agreed to and with each underwriter and us that:

(a) it is a qualified investor within the meaning of the law in that Relevant Member State implementing Article 2(1)(e) of the Prospectus Directive; and

(b) in the case of any shares acquired by it as a financial intermediary, as that term is used in Article 3(2) of the Prospectus Directive, (i) the shares acquired by it in the offer have not been acquired on behalf of, nor have they been acquired with a view to their offer or resale to, persons in any Relevant Member State, other than qualified investors, as that term is defined in the Prospectus Directive, or in circumstances in which the prior consent of the representatives has been given to the offer or resale; or (ii) where shares have been acquired by it on behalf of persons in any Relevant Member State other than qualified investors, the offer of those shares to it is not treated under the Prospectus Directive as having been made to such persons.

For the purposes of this provision, the expression an offer to the public in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase any shares, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

Each underwriter has represented, warranted and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (the FSMA)) to persons who are investment professionals falling within Article 19(5) of the FSMA (Financial Promotion) Order 2005 or in circumstances in which Section 21(1) of the FSMA does not apply to us; and

(b) it has complied with and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

Table of Contents

Switzerland. The shares offered pursuant to this document will not be offered, directly or indirectly, to the public in Switzerland and this document does not constitute a public offering prospectus as that term is understood pursuant to art. 652a or art. 1156 of the Swiss Federal Code of Obligations. We have not applied for a listing of the shares being offered pursuant to this prospectus supplement on the SWX Swiss Exchange or on any other regulated securities market, and consequently, the information presented in this document does not necessarily comply with the information standards set out in the relevant listing rules. The shares being offered pursuant to this prospectus supplement have not been registered with the Swiss Federal Banking Commission as foreign investment funds, and the investor protection afforded to acquirers of investment fund certificates does not extend to acquirers of shares.

Investors are advised to contact their legal, financial or tax advisers to obtain an independent assessment of the financial and tax consequences of an investment in shares.

S-88

Table of Contents

Information Incorporated by Reference

The SEC allows us to incorporate by reference the information and reports we file with it, which means that we can disclose important information to you by referring you to these documents. Our SEC file number is 0-23599. The information incorporated by reference is an important part of this prospectus supplement and the accompanying prospectus, and information that we file later with the SEC will automatically update and supersede the information already incorporated by reference. We are incorporating by reference the documents listed below, which we have already filed with the SEC, and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, except as to any portion of any future report or document that is not deemed filed under such provisions, prior to the termination of this offering:

- n Annual Report on Form 10-K for the year ended June 30, 2010;
- n Quarterly Report on Form 10-Q for the quarter ended September 30, 2010;
- n Quarterly Report on Form 10-Q for the quarter ended December 31, 2010;
- n Portions of our Proxy Statement filed with the SEC on September 20, 2010 that have been incorporated by reference into our Annual Report on Form 10-K;
- n Current Reports on Form 8-K filed July 15, 2010, September 14, 2010, October 22, 2010, and January 12, 2011;
- n The description of our common stock contained in our registration statement on Form 8-A, which was filed on January 7, 1998, including any amendment or report filed for the purpose of updating such description; and
- n The description of our preferred stock purchase rights contained in our registration statement on Form 8-A, which was filed on December 15, 2005, including any amendment or report filed for the purpose of updating such description.

Upon request, we will provide, without charge, to each person to whom a copy of this prospectus is delivered a copy of the documents incorporated by reference into this prospectus. You may request a copy of these filings, and any exhibits we have specifically incorporated by reference as an exhibit in this prospectus, at no cost by writing or telephoning us at the following address:

Mercury Computer Systems, Inc.

201 Riverneck Road

Chelmsford, Massachusetts 01824

(978) 256-1300

Attention: Secretary

This prospectus is part of a registration statement we filed with the SEC. We have incorporated exhibits into this registration statement. You should read the exhibits carefully for provisions that may be important to you.

You should rely only on the information incorporated by reference or provided in this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with different information. We are not making an offer of these securities in any state where the

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

offer is not permitted. You should not assume that the information in this prospectus or in the documents incorporated by reference is accurate as of any date other than the date on the front of this prospectus or those documents.

S-89

Table of Contents

Where You Can Find More Information

We are subject to the information requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and in accordance with the Exchange Act, file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room. These documents also may be accessed through the SEC's electronic data gathering, analysis and retrieval system, or EDGAR, via electronic means, including the SEC's home page on the Internet (www.sec.gov).

Experts

The consolidated financial statements and schedule of Mercury Computer Systems, Inc. and subsidiaries as of June 30, 2010 and 2009, and for each of the years in the three-year period ended June 30, 2010, and management's assessment of the effectiveness of internal control over financial reporting as of June 30, 2010 have been included or incorporated by reference herein in reliance upon the report of KPMG LLP, independent registered public accounting firm, included herein, and upon the authority of said firm as experts in accounting and auditing. The audit report covering the June 30, 2010 consolidated financial statements refers to a change to the method of accounting for revenue arrangements with multiple deliverables entered into or substantially modified after July 1, 2009.

Legal Matters

Certain legal matters, including the legality of the securities offered, will be passed upon for us by Bingham McCutchen LLP, Boston, Massachusetts. Certain legal matters will be passed upon by Latham & Watkins LLP, New York, New York, counsel for the underwriters in this offering.

Table of Contents

Financial Statements

Index to Consolidated Financial Statements

<u>Report of Independent Registered Public Accounting Firm</u>	F-2
<u>Consolidated Balance Sheets as of June 30, 2010 and 2009</u>	F-3
<u>Consolidated Statements of Operations for the Years Ended June 30, 2010, 2009 and 2008</u>	F-4
<u>Consolidated Statements of Shareholders' Equity and Comprehensive Income (Loss) for the Years Ended June 30, 2010, 2009 and 2008</u>	F-5
<u>Consolidated Statements of Cash Flows for the Years Ended June 30, 2010, 2009 and 2008</u>	F-6
<u>Notes to Consolidated Financial Statements</u>	F-7
<u>Consolidated Balance Sheets as of December 31, 2010 and June 30, 2010 (Unaudited)</u>	F-40
<u>Consolidated Statements of Operations for the Three and Six Months Ended December 31, 2010 and 2009 (Unaudited)</u>	F-41
<u>Consolidated Statements of Cash Flows for the Six Months Ended December 31, 2010 and 2009 (Unaudited)</u>	F-42
<u>Notes to Consolidated Financial Statements (Unaudited)</u>	F-43

Table of Contents

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders

Mercury Computer Systems, Inc.:

We have audited the accompanying consolidated balance sheets of Mercury Computer Systems, Inc. and subsidiaries as of June 30, 2010 and 2009, and the related consolidated statements of operations, shareholders' equity and comprehensive income (loss), and cash flows for each of the years in the three-year period ended June 30, 2010. In connection with our audits of the consolidated financial statements, we have also audited financial statement Schedule II. We also have audited Mercury Computer Systems, Inc.'s internal control over financial reporting as of June 30, 2010, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Mercury Computer Systems, Inc.'s management is responsible for these consolidated financial statements and financial statement schedule, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule and an opinion on the Company's internal control over financial reporting based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the consolidated financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Mercury Computer Systems, Inc. and subsidiaries as of June 30, 2010 and 2009, and the results of their operations and their cash flows for each of the years in the three-year period ended June 30, 2010, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein. Also in our opinion, Mercury Computer Systems, Inc. maintained, in all material respects, effective internal control over financial reporting as of June 30, 2010, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

As discussed in Note B to the consolidated financial statements, the Company has changed its method of accounting for revenue arrangements with multiple-deliverables entered into or substantially modified after July 1, 2009 to adopt FASB ASU No. 2009-13, *Multiple-Deliverable Revenue Arrangements*.

/s/ KPMG LLP

Boston, Massachusetts

August 19, 2010

F-2

Table of Contents**Mercury Computer Systems, Inc.****Consolidated Balance Sheets**

(In thousands, except share and per share data)

	June 30,	
	2010	2009
Assets		
Current assets:		
Cash and cash equivalents	\$ 56,241	\$ 46,950
Marketable securities and related receivables	18,025	44,977
Accounts receivable, net of allowance for doubtful accounts of \$163 and \$425 at June 30, 2010 and 2009, respectively	36,726	25,549
Unbilled receivables	6,938	3,046
Inventory	17,622	16,805
Option to sell auction rate securities at par		5,030
Deferred tax assets	5,393	281
Prepaid income taxes	2,546	384
Prepaid expenses and other current assets	2,363	3,083
Total current assets	145,854	146,105
Restricted cash	3,000	3,000
Property and equipment, net	10,298	7,960
Goodwill	57,653	57,653
Acquired intangible assets, net	1,141	2,911
Deferred tax assets	5,419	833
Other non-current assets	973	910
Total assets	\$ 224,338	\$ 219,372
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	\$ 10,533	\$ 3,770
Accrued expenses	5,025	7,449
Accrued compensation	10,723	9,372
Borrowings under line of credit and current capital lease obligations	53	33,408
Income taxes payable	220	2,316
Deferred revenues and customer advances	8,051	7,840
Current liabilities of discontinued operations		1,234
Total current liabilities	34,605	65,389
Deferred gain on sale-leaseback	6,713	7,870
Income taxes payable	1,836	
Other non-current liabilities	2,072	1,076
Total liabilities	45,226	74,335
Commitments and contingencies (Note M)		
Shareholders' equity:		

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

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; 22,883,314 and 22,376,069 shares issued and outstanding at June 30, 2010 and 2009 respectively	229	224
Additional paid-in capital	110,270	104,843
Retained earnings	67,671	39,313
Accumulated other comprehensive income	942	657
Total shareholders' equity	179,112	145,037
 Total liabilities and shareholders' equity	 \$ 224,338	 \$ 219,372

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

F-3

Table of Contents**Mercury Computer Systems, Inc.****Consolidated Statements of Operations**

(In thousands, except per share data)

	For the Years Ended June 30,		
	2010	2009	2008
Net revenues	\$ 199,830	\$ 188,939	\$ 190,208
Cost of revenues	87,298	83,509	80,271
Gross margin	112,532	105,430	109,937
Operating expenses:			
Selling, general and administrative	51,519	51,185	63,084
Research and development	41,548	42,372	45,234
Amortization of acquired intangible assets	1,710	2,414	5,146
Impairment of goodwill and long-lived assets	211		561
Restructuring	231	1,712	4,454
Gain on sale of long-lived and other assets			(3,151)
Total operating expenses	95,219	97,683	115,328
Income (loss) from operations	17,313	7,747	(5,391)
Interest income	532	2,059	6,489
Interest expense	(381)	(2,551)	(3,360)
Other income, net	1,228	763	1,535
Income (loss) from continuing operations before income taxes	18,692	8,018	(727)
Income tax (benefit) expense	(9,377)	109	3,710
Income (loss) from continuing operations	28,069	7,909	(4,437)
Income (loss) from discontinued operations, net of income taxes	215	(20,328)	(29,971)
Gain (loss) on sale of discontinued operations, net of income taxes	74	11,157	(1,005)
Net income (loss)	\$ 28,358	\$ (1,262)	\$ (35,413)
Basic net earnings (loss) per share:			
Continuing operations	\$ 1.25	\$ 0.36	\$ (0.21)
Income (loss) from discontinued operations	0.01	(0.92)	(1.38)
Gain (loss) on sale of discontinued operations		0.50	(0.05)
Net income (loss)	\$ 1.26	\$ (0.06)	\$ (1.64)
Diluted net earnings (loss) per share:			
Continuing operations	\$ 1.22	\$ 0.35	\$ (0.21)
Income (loss) from discontinued operations	0.01	(0.91)	(1.38)
Gain (loss) on sale of discontinued operations		0.50	(0.05)

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Net income (loss)	\$ 1.23	\$ (0.06)	\$ (1.64)
Weighted-average shares outstanding:			
Basic	22,559	22,150	21,639
Diluted	23,008	22,416	21,639

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

F-4

Table of Contents

Mercury Computer Systems, Inc.
Consolidated Statements of Shareholders' Equity
and Comprehensive Income (loss)

For the Years Ended June 30, 2010, 2009 and 2008

(In thousands)

	Common Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Compre- hensive Income (loss)	Total Shareholders' Equity	Compre- hensive Income (loss)
	Shares	Amount					
Balance June 30, 2007	21,415	\$ 214	\$ 89,332	\$ 75,988	\$ 3,123	\$ 168,657	
Issuance of common stock under employee stock incentive plans	566	6	774			780	
Issuance of common stock under employee stock purchase plan	99	1	809			810	
Repurchase of common stock	(108)	(1)	(1,009)			(1,010)	
Stock-based compensation			10,362			10,362	
Comprehensive loss:							
Net loss				(35,413)		(35,413)	\$ (35,413)
Net unrealized loss on securities					(2,941)	(2,941)	(2,941)
Foreign currency translation adjustments for sales of businesses					(297)	(297)	(297)
Other foreign currency translation adjustments					5,564	5,564	5,564
							\$ (33,087)
Balance June 30, 2008	21,972	\$ 220	\$ 100,268	\$ 40,575	\$ 5,449	\$ 146,512	
Issuance of common stock under employee stock incentive plans	397	4	160			164	
Issuance of common stock under employee stock purchase plan	96	1	530			531	
Repurchase of common stock	(89)	(1)	(683)			(684)	
Stock-based compensation			4,568			4,568	
Comprehensive loss:							
Net loss				(1,262)		(1,262)	\$ (1,262)
Net unrealized gain on securities					3,129	3,129	3,129
Foreign currency translation adjustments for sales of businesses					(5,454)	(5,454)	(5,454)
Other foreign currency translation adjustments					(2,467)	(2,467)	(2,467)
							\$ (6,054)
Balance June 30, 2009	22,376	\$ 224	\$ 104,843	\$ 39,313	\$ 657	\$ 145,037	
Issuance of common stock under employee stock incentive plans	455	5	997			1,002	
Issuance of common stock under employee stock purchase plan	94	1	846			847	

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Repurchase of common stock	(42)	(1)	(432)	(433)				
Stock-based compensation			4,016	4,016				
Comprehensive income:								
Net income			28,358	28,358	\$	28,358		
Net unrealized loss on securities			(83)	(83)		(83)		
Foreign currency translation adjustments			368	368		368		
								\$ 28,643
Balance June 30, 2010	22,883	\$ 229	\$ 110,270	\$ 67,671	\$ 942	\$ 179,112		

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

F-5

Table of Contents**Mercury Computer Systems, Inc.****Consolidated Statements of Cash Flows**

(In thousands)

	For The Years Ended June 30,		
	2010	2009	2008
Cash flows from operating activities:			
Net income (loss)	\$ 28,358	\$ (1,262)	\$ (35,413)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Depreciation and amortization	6,857	9,364	15,988
Stock-based compensation	4,016	4,568	10,362
Changes in deferred income taxes	(9,698)	(1,373)	3,582
Non-cash interest expense	32	750	846
Impairment of goodwill and long-lived assets	211	14,555	17,983
Gross tax windfall from stock-based compensation	(1,494)	(976)	(243)
Gain on sale of AUSG long-lived and other assets			(3,151)
(Gain) loss on sale of discontinued operations	(74)	(11,157)	1,005
Other non-cash expenses	(1,266)	(1,157)	(1,031)
Changes in operating assets and liabilities, net of effects of businesses disposed of:			
Accounts receivable	(15,256)	1,237	3,154
Inventory	(859)	7,478	(2,494)
Prepaid income taxes	(2,162)		
Prepaid expenses and other current assets	505	4,977	1,126
Other assets	(113)	349	248
Accounts payable and accrued expenses	5,708	(12,668)	(602)
Deferred revenues and customer advances	234	(3,048)	2,348
Income taxes payable	(262)	1,319	(37)
Other non-current liabilities	971	(1,757)	55
Net cash provided by operating activities	15,708	11,199	13,726
Cash flows from investing activities:			
Purchases of marketable securities		(138,583)	(182,528)
Sales and maturities of marketable securities	32,025	199,099	177,983
Purchases of property and equipment	(7,334)	(4,126)	(4,625)
Proceeds from sale of AUSG long-lived and other assets			3,631
(Payments) proceeds from sale of discontinued operations, net	(826)	9,959	367
Proceeds from redemption of insurance policies		831	324
Acquisition of businesses, net of cash acquired			(2,400)
Payments for acquired intangible assets	(250)	(234)	
Net cash provided by (used in) investing activities	23,615	66,946	(7,248)
Cash flows from financing activities:			
Proceeds from employee stock plans	1,849	695	1,590
(Payments) borrowings under line of credit, net	(33,364)	33,364	
Payments of deferred financing activities	(170)		
Gross tax windfall from stock-based compensation	1,494	976	243
Repurchases of common stock	(433)	(684)	(1,010)
Payments of principal under notes payable		(125,000)	
Proceeds (payments) of capital lease obligations	30	(248)	(120)

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Net cash (used in) provided by financing activities	(30,594)	(90,897)	703
Effect of exchange rate changes on cash and cash equivalents	562	657	571
Net increase (decrease) in cash and cash equivalents	9,291	(12,095)	7,752
Cash and cash equivalents at beginning of year	46,950	59,045	51,293
Cash and cash equivalents at end of year	\$ 56,241	\$ 46,950	\$ 59,045
Cash paid (received) during the year for:			
Interest	\$ 150	\$ 1,877	\$ 2,502
Income taxes, net	\$ 2,587	\$ (3,523)	\$ 206
Supplemental disclosures non-cash activities:			
Issuance of restricted stock awards to employees	\$ 6,219	\$ 2,301	\$ 3,283

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

F-6

Table of Contents

Mercury Computer Systems, Inc.

Notes to Consolidated Financial Statements

(Amounts in thousands, except per share data)

A. Description of Business

Mercury Computer Systems, Inc. (the Company or Mercury) designs, manufactures and markets high-performance embedded, real-time digital signal and image processing systems and software for embedded and other specialized commercial and defense computing markets. The Company's solutions are involved in a wide range of applications, transforming sensor data to information for analysis and interpretation. In military reconnaissance and surveillance platforms, the Company's systems process real-time radar, sonar and signals intelligence data. The Company's systems are also used in semiconductor imaging applications including photomask generation and wafer inspection. The Company also provides radio frequency products for enhanced communications capabilities in military and commercial applications. Additionally, the Company entered the defense prime contracting market space in fiscal 2008 through the creation of its wholly-owned subsidiary, Mercury Federal Systems, Inc. (MFS) to focus on reaching the federal intelligence and homeland security agencies. The Company's primary markets are aerospace and defense, specifically in the intelligence, surveillance and reconnaissance (ISR) space, which includes radar, electronic warfare, sonar and electro-optical markets; and commercial markets, which include semiconductor, commercial computing and homeland security markets.

B. Summary of Significant Accounting Policies

Basis of Presentation

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), the Embedded Systems and Professional Services (ES/PS) businesses, the Visage Imaging (VI) business and the Visualization Sciences Group (VSG) business.

In June 2009, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards (SFAS) No. 168, *The FASB Accounting Standards CodificationTM and the Hierarchy of Generally Accepted Accounting Principles – a replacement of FASB Statement No. 162* (FASB SFAS 168). SFAS 168 establishes the *FASB Accounting Standards CodificationTM* (Codification) as the source of authoritative U.S. GAAP for nongovernmental entities. The Codification does not change U.S. GAAP. Instead, it takes the thousands of individual pronouncements that currently comprise U.S. GAAP and reorganizes them into approximately 90 accounting Topics, and displays all Topics using a consistent structure. Contents in each Topic are further organized first by Subtopic, then Section and finally Paragraph. The Paragraph level is the only level that contains substantive content. Citing particular content in the Codification involves specifying the unique numeric path to the content through the Topic, Subtopic, Section and Paragraph structure. FASB suggests that all citations begin with FASB ASC, where ASC stands for *Accounting Standards Codification*. Changes to the ASC subsequent to June 30, 2009 are referred to as Accounting Standards Updates (ASU).

In conjunction with the issuance of FASB SFAS 168, the FASB also issued ASU No. 2009-1, *Topic 105 – Generally Accepted Accounting Principles* (FASB ASU 2009-1), which includes FASB SFAS 168 in its entirety as a transition to the ASC. FASB ASU 2009-1 is effective for interim and annual periods ending after September 15, 2009 and had no impact on the Company's financial position or results of operations but changed the referencing system for accounting standards.

Certain of the following pronouncements were issued prior to the issuance of the ASC and adoption of the ASUs. For such pronouncements, citations to the applicable Codification by Topic, Subtopic and Section are provided where applicable in addition to the original standard type and number.

Effective February 2010, the Company adopted FASB ASU 2010-09, *Subsequent Events* (FASB ASU 2010-09), which updated FASB ASC 855, *Subsequent Events* (FASB ASC 855). FASB ASU 2010-09 clarifies the date through which

Table of Contents

the Company is required to evaluate subsequent events. SEC filers will be required to evaluate subsequent events through the date that the financial statements are issued. Such adoption had no impact on the Company's financial position or results of operations as it only amends required disclosures.

Effective January 1, 2010, the Company adopted FASB ASU 2010-06, *Improving Disclosures about Fair Value Measurements* (FASB ASU 2010-06). FASB ASU 2010-06 requires additional disclosures about fair value measurements including transfers in and out of Levels 1 and 2 and a higher level of disaggregation for the different types of financial instruments. For the reconciliation of Level 3 fair value measurements, information about purchases, sales, issuances and settlements are presented separately. This standard is effective for interim and annual reporting periods beginning after December 15, 2009 with the exception of revised Level 3 disclosure requirements which are effective for interim and annual reporting periods beginning after December 15, 2010. Comparative disclosures are not required in the year of adoption. Such adoption did not have a material impact on the Company's financial position or results of operations.

Effective July 1, 2009, the Company adopted FASB ASU No. 2009-13, *Multiple-Deliverable Revenue Arrangements* (FASB ASU 2009-13), which amends FASB ASC 605, *Revenue Recognition*. FASB ASU 2009-13 amends the FASB ASC to eliminate the residual method of allocation for multiple-deliverable revenue arrangements, and requires that arrangement consideration be allocated at the inception of an arrangement to all deliverables using the relative selling price method. The ASU also establishes a selling price hierarchy for determining the selling price of a deliverable, which includes: (1) vendor-specific objective evidence if available; (2) third-party evidence if vendor-specific objective evidence is not available; and (3) best estimated selling price if neither vendor-specific nor third-party evidence is available. Additionally, FASB ASU 2009-13 expands the disclosure requirements related to a vendor's multiple-deliverable revenue arrangements. This guidance is effective for the Company July 1, 2010; however, the Company has elected to early adopt as permitted by the guidance. As such, the Company has applied the provisions of FASB ASU 2009-13 to all revenue arrangements entered into or materially modified after July 1, 2009.

Effective July 1, 2009, the Company adopted FASB ASU No. 2009-14, *Certain Revenue Arrangements That Include Software Elements* (FASB ASU 2009-14), which amends FASB ASC 985, *Software*. FASB ASU 2009-14 amends the FASB ASC to change the accounting model for revenue arrangements that include both tangible products and software elements, such that tangible products containing both software and non-software components that function together to deliver the tangible product's essential functionality are no longer within the scope of software revenue guidance. This guidance is effective for the Company July 1, 2010; however, the Company has elected to early adopt as permitted by the guidance. As such, the Company has applied the provisions of FASB ASU 2009-14 to all revenue arrangements entered into or materially modified after July 1, 2009. Such adoption did not have a material impact on the Company's financial position or results of operations.

Effective July 1, 2009, the Company adopted FASB ASC 805, *Business Combinations* (FASB ASC 805 and formerly referred to as SFAS No. 141(R) and SFAS No. 141(R)-1). FASB ASC 805 requires the acquisition method to be applied to all transactions and other events in which an entity obtains control over one or more other businesses, requires the acquirer to recognize the fair value of all assets and liabilities acquired, even if less than one hundred percent ownership is acquired, and establishes the acquisition date fair value as measurement date for all assets and liabilities assumed. Additionally, FASB ASC 805-20 provides further guidance on the initial recognition and measurement, subsequent measurement and accounting, and disclosure of assets and liabilities arising from contingencies in business combinations. The guidance within FASB ASC 805 is effective prospectively for any acquisitions made after July 1, 2009. Since adoption, the Company has had no acquisitions and as such, the adoption did not have a material impact on the Company's financial position or results of operations.

Effective July 1, 2009, the Company adopted FASB Staff Position (FSP) No. 142-3, *Determination of the Useful Life of Intangible Assets*, which was primarily codified into FASB ASC 350 *Intangibles Goodwill and Other* (FASB ASC 350) in the FASB ASC. This guidance amends the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset and requires enhanced related disclosures. FASB ASC 350 improves the consistency between the useful life of a recognized intangible asset and the period of expected cash flows used to measure the fair value of the asset. This guidance must be applied prospectively to all intangible assets acquired as of and subsequent to fiscal years beginning after December 15, 2008. This guidance

Table of Contents

became effective for the Company on July 1, 2009. Although future transactions involving intangible assets may be affected by this guidance, it did not impact the Company's financial position or results of operations as the Company did not acquire any intangible assets during fiscal 2010.

Effective July 1, 2009, the Company adopted FSP No. 107-1 and APB Opinion 28-1, *Interim Disclosures about Fair Value of Financial Instruments*, which is now part of FASB ASC 825, *Financial Instruments* (FASB ASC 825). FASB ASC 825 requires disclosures about fair value of financial instruments for interim and annual reporting periods and is effective for interim reporting periods ending after June 15, 2009. Such adoption did not have a material impact on the Company's financial position or results of operations.

The Company adopted FASB ASC 820, *Fair Value Measurements and Disclosures* (FASB ASC 820), formerly SFAS No. 157, on July 1, 2008 for financial assets and liabilities that are re-measured and reported at fair value at each reporting period. On July 1, 2009, the Company adopted the provisions of FASB ASC 820 for fair value measurements of nonfinancial assets and nonfinancial liabilities that are recognized or disclosed at fair value in the financial statements on a nonrecurring basis. Such adoption did not have a material impact on the Company's financial position or results of operations.

Effective August 2009, the Company adopted FASB ASU No. 2009-05, *Measuring Liabilities at Fair Value* (FASB ASU 2009-05), which amends FASB ASC 820, *Fair Value Measurements and Disclosures*. FASB ASU 2009-05 provides clarification and guidance regarding how to value a liability when a quoted price in an active market is not available for that liability. The changes to the FASB ASC as a result of this update were effective for the Company on October 1, 2009. Such adoption did not have a material impact on the Company's financial position or results of operations.

Use of Estimates

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

Revenue Recognition

Revenue from system sales is recognized upon shipment provided that title and risk of loss have passed to the customer, there is persuasive evidence of an arrangement, the sales price is fixed or determinable, collection of the related receivable is reasonably assured, and customer acceptance criteria, if any, have been successfully demonstrated.

Certain contracts with customers require the Company to perform tests of its products prior to shipment to ensure their performance complies with the Company's published product specifications and, on occasion, with additional customer-requested specifications. In these cases, the Company conducts such tests and, if they are completed successfully, includes a written confirmation with each order shipped. As a result, at the time of each product shipment, the Company believes that no further customer testing requirements exist and that there is no uncertainty of acceptance by its customer.

The Company enters into multiple-deliverable arrangements that may include a combination of hardware components, related integration or other services. These arrangements generally do not include any performance-, cancellation-, termination- or refund-type provisions. Total revenue recognized under multiple-deliverable revenue arrangements in fiscal 2010 was approximately 53% of total revenues. The majority of the Company's multiple-deliverable revenue arrangements ship complete within the same quarter.

Effective July 1, 2009, the Company adopted FASB ASU No. 2009-13, *Multiple-Deliverable Revenue Arrangements*, which amends FASB ASC Topic 605, *Revenue Recognition*. FASB ASU 2009-13 eliminates the residual method of allocation for multiple-deliverable revenue arrangements and requires that arrangement consideration be allocated at the inception of an arrangement to all deliverables using the relative selling price method. FASB ASU 2009-13 also establishes a selling price hierarchy for determining the selling price of a deliverable, which includes: (1) vendor-

Table of Contents

specific objective evidence if available; (2) third-party evidence if vendor-specific objective evidence is not available; and (3) best estimated selling price if neither vendor-specific nor third-party evidence is available. Additionally, FASB ASU 2009-13 expands the disclosure requirements related to a vendor's multiple-deliverable revenue arrangements. This guidance is effective for the Company on July 1, 2010; however, the Company elected to early adopt, as permitted by the guidance. As such, the Company has prospectively applied the provisions of FASB ASU 2009-13 to all revenue arrangements entered into or materially modified after July 1, 2009.

Per the provisions of FASB ASU 2009-13, the Company allocates arrangement consideration to each deliverable in an arrangement based on its relative selling price. The Company determines selling price using vendor specific objective evidence (VSOE), if it exists, otherwise third-party evidence (TPE). If neither VSOE nor TPE of selling price exists for a unit of accounting, the Company uses best estimated selling price (BESP). The Company generally expects that it will not be able to establish TPE due to the nature of the markets in which the Company competes, and, as such, the Company typically will determine selling price using VSOE or BESP.

VSOE is generally limited to the price charged when the same or similar product is sold separately or, if applicable, the stated substantive renewal rate in the agreement. If a product or service is seldom sold separately, it is unlikely that the Company can determine VSOE for the product or service. The Company defines VSOE as a median price of recent standalone transactions that are priced within a narrow range, as defined by the Company.

TPE is determined based on the prices charged by competitors of the Company for a similar deliverable when sold separately. As noted above, the Company typically is not able to use TPE as the Company is usually unable to obtain sufficient information on competitor pricing to substantiate TPE.

If the Company is unable to establish selling price using VSOE or TPE, and the order was received or materially modified after the Company's FASB ASU 2009-13 implementation date of July 1, 2009, the Company will use BESP in its allocation of arrangement consideration. The objective of BESP is to determine the price at which the Company would transact if the product or service were sold by the Company on a standalone basis.

The Company's determination of BESP involves the consideration of several factors based on the specific facts and circumstances of each arrangement. Specifically, the Company considers the cost to produce the deliverable, the anticipated margin on that deliverable, the selling price and profit margin for similar parts, the Company's ongoing pricing strategy and policies (as evident from the price list established and updated by management on a regular basis), the value of any enhancements that have been built into the deliverable and the characteristics of the varying markets in which the deliverable is sold.

Since the adoption of FASB ASU 2009-13 on July 1, 2009, the Company has primarily used its ongoing pricing strategy and policies to determine BESP. The Company has corroborated the BESP determined by ongoing pricing strategy and policies with the cost to produce the deliverable, the anticipated margin on the deliverable, the selling price and profit margin for similar parts and the characteristics of the varying markets in which the deliverables are sold. The Company will determine BESP for deliverables in future agreements based on the specific facts and circumstances of each arrangement.

The Company plans to analyze the selling prices used in its allocation of arrangement consideration at a minimum on an annual basis. Selling prices will be analyzed on a more frequent basis if a significant change in the Company's business necessitates a more timely analysis or if the Company experiences significant variances in its selling prices.

Each deliverable within the Company's multiple-deliverable revenue arrangements is accounted for as a separate unit of accounting under the guidance of FASB ASU 2009-13 if both of the following criteria are met: the delivered item or items have value to the customer on a standalone basis; and for an arrangement that includes a general right of return relative to the delivered item(s), delivery or performance of the undelivered item(s) is considered probable and substantially in the control of the Company. The Company considers a deliverable to have standalone value if the item is sold separately by the Company or another vendor or if the item could be resold by the customer. Further, the Company's revenue arrangements generally do not include a general right of return relative to delivered products.

Deliverables not meeting the criteria for being a separate unit of accounting are combined with a deliverable that does meet that criterion. The appropriate allocation of arrangement consideration and recognition of revenue is then determined for the combined unit of accounting.

Table of Contents

As a result of implementing FASB ASU 2009-13, the Company recognized \$25,102 in revenue in fiscal 2010, which would have been deferred under the previous guidance for multiple element arrangements. The Company anticipates that the effect of the adoption of this guidance on subsequent periods will be primarily based on the substance of the arrangements entered into or materially modified after the July 1, 2009 adoption date and the timing of the shipments of the deliverables within these arrangements.

For transactions involving the licensing of standalone software products and of software that is not incidental to the product, the Company recognizes revenue when there is persuasive evidence of an arrangement, delivery of the software has occurred, the price is fixed or determinable, and collection of the related receivable is reasonably assured. The Company's software products are generally not deemed essential to the functionality of any hardware system and do not require installation by the Company or significant modification or customization of the software. If fair value of maintenance agreements related to standalone software products is obtained, the fair value of the maintenance agreement is recognized as revenue ratably over the term of each maintenance agreement.

In electing to early adopt FASB ASU No. 2009-13, the Company also early adopted FASB ASU No. 2009-14, *Certain Revenue Arrangements That Include Software Elements*. FASB ASU 2009-14 amends the FASB ASC 985 to change the accounting model for revenue arrangements that include both tangible products and software elements, such that tangible products containing both software and non-software components that function together to deliver the tangible product's essential functionality are no longer within the scope of software revenue guidance. Since the adoption of FAS ASU 2009-14 on July 1, 2009, there were no multiple element arrangements containing software element that functioned together with a tangible element that were not delivered complete during Fiscal 2010. The Company will continue to monitor multiple element arrangements to determine if they are in scope of FASB ASU 2009-14, and when applicable will apply all relevant criteria per guidance.

For multiple-element arrangements entered into prior to July 1, 2009, in accordance with ASC 605-25, formerly Emerging Issues Task Force 00-21, *Revenue Arrangements with Multiple Deliverables*, the Company defers the greater of the fair value of any undelivered elements of the contract or the portion of the sales price that is not payable until the undelivered elements are delivered. For a delivered item to be considered a separate unit, the delivered item must have value to the customer on a standalone basis, there must be objective and reliable evidence of fair value of the undelivered items in the arrangement and the delivery or performance of the undelivered item must be considered probable and substantially within the Company's control. Fair value is generally limited to the price charged when the same or similar element is sold separately or, if applicable, the stated substantive renewal rate in the agreement. For multiple-element arrangements for which the Company does not have fair value for the undelivered elements, it either defers all revenue until the order ships complete, or in the event a maintenance arrangement is the only undelivered element, it generally amortizes the fair value of maintenance agreement over the maintenance period.

The Company also engages in long-term contracts for development, production and services activities which it accounts for consistent with FASB ASC 605, formerly Statement of Position 81-1, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts*, and other relevant revenue recognition accounting literature. The Company considers the nature of these contracts and the types of products and services provided when determining the proper accounting for a particular contract. Generally for fixed-price contracts, other than service-type contracts, revenue is recognized primarily under the percentage of completion method or, for certain short-term contracts, by the completed contract method. Revenue from service-type fixed-price contracts is recognized ratably over the contract period or by other appropriate input or output methods to measure service provided, and contract costs are expensed as incurred. The Company establishes billing terms at the time project deliverables and milestones are agreed. Normal payment terms are thirty days from invoice date. Revenues recognized in excess of the amounts invoiced to clients are classified as unbilled receivables. The risk to the Company on a fixed-price contract is that if estimates to complete the contract change from one period to the next, profit levels will vary from period to period. For time and materials contracts, revenue reflects the number of direct labor hours expended in the performance of a contract multiplied by the contract billing rate, as well as reimbursement of other billable direct costs. The risk inherent in time and materials contracts is that actual costs may differ materially from negotiated billing rates in the contract, which would directly affect operating income. For all types of contracts, the Company recognizes anticipated contract losses as soon as they become known and estimable. Out-of-pocket expenses that are reimbursable by the customer are included in revenue and cost of revenue.

Table of Contents

The use of contract accounting requires significant judgment relative to estimating total contract revenues and costs, including assumptions relative to the length of time to complete the contract, the nature and complexity of the work to be performed, anticipated increases in wages and prices for subcontractor services and materials, and the availability of subcontractor services and materials. The Company's estimates are based upon the professional knowledge and experience of its engineers, program managers and other personnel, who review each long-term contract monthly to assess the contract's schedule, performance, technical matters and estimated cost at completion. Changes in estimates are applied on a retrospective basis, that is to say when adjustments in estimated contract costs are identified, such revisions may have the effect of adjusting in the current period the earnings applicable to performance in prior periods.

With very limited exceptions, the Company does not provide its customers with rights of product return, other than those related to warranty provisions that permit repair or replacement of defective goods. The Company accrues for anticipated warranty costs upon product shipment. For the few commercial products that have a right of return, the Company defers revenue until the return period ends unless there is sufficient history to establish a reasonable returns reserve.

Revenues from product royalties are recognized upon invoice by the Company unless another reasonable and reliable method of recognition is more appropriate. Additionally, all revenues are reported net of government assessed taxes (e.g. sales taxes or value-added taxes).

Deferred Revenues and Customer Advances

Deferred revenues consist of deferred product revenue, billings in excess of revenues, and deferred service revenue. Deferred product revenue represents amounts that have been invoiced to customers, but are not yet recognizable as revenue because one or more of the conditions for revenue recognition have not been met. Billings in excess of revenues represents milestone billing arrangements on percentage of completion projects where the billings of the contract exceed recognized revenues. Deferred service revenue primarily represents amounts invoiced to customers for annual maintenance contracts or extended warranty concessions, which are recognized ratably over the term of the arrangements. Customer advances represent deposits received from customers on an order.

Cash and Cash Equivalents

Cash equivalents, consisting of money market funds and U.S. government and U.S. government agency issues with remaining maturities of 90 days or less at the date of purchase, are carried at fair market value. The Company also has restricted cash which is classified as a non-current asset due to the length of the restriction.

Marketable Securities and Related Receivables

The Company classifies investments in marketable securities, excluding auction rate securities (ARS), as available-for-sale at the time of purchase and periodically re-evaluates such classification. Securities classified as available-for-sale are reported at fair market value. Unrealized gains or losses on available-for-sale securities are included, net of tax, in accumulated other comprehensive income until disposition of the security. The Company transferred its ARS from an available-for-sale classification to a trading investment securities classification in fiscal 2009 based on the election of the Company to participate in a rights offering from UBS (see Note E). The trading securities are reported at fair value. Realized and unrealized gains and losses on trading securities and declines in value judged to be other than temporary on available-for-sale are included in other income or expense. For determinations of gain or loss, the cost of securities sold is based on the specific identification method. There were no securities classified as held-to-maturity as of June 30, 2010 and 2009.

On June 30, 2010, the Company exercised the put option to sell its remaining \$18,025 ARS balance to UBS at par value. The transaction settled on July 1, 2010. As a result of the transaction, the Company had a receivable related to the sale of these marketable securities of \$18,025 from UBS as of June 30, 2010.

The fair value of cash equivalents and receivable related to marketable securities represents the quoted market prices at the balance sheet dates. Debt securities with maturities at date of purchase of greater than 90 days but less than one year to maturity at a particular balance sheet date are classified as short-term marketable securities. Debt securities that have remaining maturities of greater than one year at a particular balance sheet date are classified as long-term marketable securities.

Table of Contents

Concentration of Credit Risk

Financial instruments that potentially expose the Company to concentrations of credit risk consist principally of cash, cash equivalents, marketable securities and accounts receivable. The Company places its cash and cash equivalents with financial institutions that management believes are of high credit quality. At June 30, 2010 and 2009, the Company had approximately \$56,199 and \$42,984, respectively, of cash on deposit or invested with its financial and lending institutions. Additionally, the Company had an \$18,025 receivable balance related to marketable securities from UBS as of June 30, 2010.

The Company provides credit to customers in the normal course of business. The Company performs ongoing credit evaluations of its customers financial condition and limits the amount of credit extended when deemed necessary but generally does not require collateral. At June 30, 2010, nine customers accounted for 80% of the Company's receivables. At June 30, 2009, seven customers accounted for 70% of the Company's receivables.

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.

Goodwill and Acquired Intangible Assets

Acquired intangible assets result from the Company's various business acquisitions (see Note K) and certain licensed technologies, and consist of identifiable intangible assets, including completed technology, licensing agreements, customer relationships and non-compete agreements. Acquired intangible assets are reported at cost, net of accumulated amortization and are either amortized on a straight-line basis over their estimated useful lives of up to seven years or over the period the economic benefits of the intangible asset are consumed or otherwise used up.

Goodwill is the amount by which the cost of the acquired net assets in a business acquisition exceeded the fair values of the net identifiable assets on the date of purchase. Goodwill is not amortized in accordance with the requirements of FASB ASC 350, formerly SFAS No. 142, *Goodwill and Other Intangible Assets*. Goodwill is assessed for impairment at least annually, on a reporting unit basis, or more frequently when events and circumstances occur indicating that the recorded goodwill may be impaired. If the book value of a reporting unit exceeds its fair value, the implied fair value of goodwill is compared with the carrying amount of goodwill. If the carrying amount of goodwill exceeds the implied fair value, an impairment loss is recorded in an amount equal to that excess.

Long-Lived Assets

Long-lived assets primarily include property and equipment and acquired intangible assets. The Company periodically evaluates its long-lived assets for events and circumstances that indicate a potential impairment in accordance with FASB ASC 360, *Property, Plant, and Equipment* (FASB ASC 360), previously SFAS 144. The Company reviews long-lived assets for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable or that the useful lives of these assets are no longer appropriate. Each impairment test is based on a comparison of the estimated undiscounted cash flows of the asset as compared to the recorded value of the asset. If impairment is indicated, the asset is written down to its estimated fair value based on a discounted cash flow analysis.

Property and Equipment

Property and equipment are the long-lived, physical assets of the Company acquired for use in the Company's normal business operations and are not intended for resale by the Company. These assets are recorded at cost. Renewals and betterments that increase the useful lives of the assets are capitalized. Repair and maintenance expenditures that increase the efficiency of the assets are expensed as incurred. The Company capitalizes interest costs associated with the development and construction of certain qualifying assets in accordance with FASB ASC 835, *Interest*, formerly

Table of Contents

SFAS No. 34, *Capitalization of Interest Costs* (SFAS 34), over the period of construction. Equipment under capital lease is recorded at the present value of the minimum lease payments required during the lease period.

Depreciation is based on the following estimated useful lives of the assets using the straight-line method:

Computer software and equipment	2 to 5 years
Machinery and equipment	4 to 5 years
Furniture and fixtures	5 years
Leasehold improvements	lesser of estimated useful life or the remaining lease term

As assets are retired or sold, the related cost and accumulated depreciation are removed from the accounts and any resulting gain or loss is included in the results of operations.

Expenditures for major software purchases and software developed for internal use are capitalized and depreciated using the straight-line method over the estimated useful lives of the related assets, which are generally three to five years. For software developed for internal use, all external direct costs for material and services and certain payroll and related fringe benefit costs are capitalized in accordance with FASB ASC 350, formerly SOP 98-1, *Accounting for the Costs of Computer Software Developed or Obtained for Internal Use*. During fiscal 2010, the Company capitalized \$249 of software development costs. Software development costs qualifying for capitalization were not material for the years ended June 30, 2009 and 2008.

Capitalized Software Development Costs

The Company capitalizes software development costs incurred after a product's technological feasibility has been established and before it is available for general release to customers. Amortization of capitalized software costs commences once the product is available for general release and is computed on an individual product basis based on the greater of (a) the ratio that current gross revenues for a product bear to total anticipated gross revenues for that product, or (b) the straight-line method over the estimated economic life of the product. Software development costs qualifying for capitalization were not material for the years ended June 30, 2010, 2009 and 2008.

Research and Development Costs

Research and development costs are expensed as incurred. Research and development costs are primarily made up of labor charges and prototype material and development expenses.

Advertising Costs

The Company expenses advertising costs as incurred. During fiscal 2010, 2009 and 2008, advertising expenses totaled \$255, \$148 and \$289, respectively, and were included in selling, general and administrative expense in the consolidated statements of operations.

Product Warranty Accrual

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

Table of Contents**Income Taxes**

The Company recognizes deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the Company's consolidated financial statements. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial statement and tax basis of assets and liabilities using enacted tax rates for the year in which the differences are expected to reverse. The Company records a valuation allowance against net deferred tax assets if, based upon the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

FASB ASC 740, formerly SFAS 109 and FIN 48, *Accounting for Income Taxes*, requires a two-step approach to recognizing and measuring uncertain tax positions. First, the tax position must be evaluated to determine the likelihood that it will be sustained upon external examination. If the tax position is deemed more-likely-than-not to be sustained, the tax position is then assessed to determine the amount of benefit to recognize in the financial statements. The amount of the benefit that may be recognized is the largest amount that has a greater than 50% likelihood of being realized upon ultimate settlement.

Net Earnings (Loss) Per Share

Basic net earnings (loss) per share is calculated by dividing net income (loss) by the weighted-average number of common shares outstanding during the period. Diluted net earnings (loss) per share is calculated by dividing net income (loss) by the sum of the weighted-average number of common shares outstanding plus additional common shares that would have been outstanding if potential dilutive common shares had been issued for stock-based compensation.

Stock-Based Compensation

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 Company's determination of fair value of stock-based payment awards is affected by the Company's stock price as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to the Company's expected stock price volatility over the term of the awards, the expected forfeiture rate of the awards and the actual and projected employee stock option exercise behaviors. Any changes in these assumptions may materially affect the estimated fair value of the stock-based award. The Company has elected under FASB ASC 718, *Compensation - Stock Compensation* (FASB ASC 718), formerly SFAS No. 123R, *Share-Based Payment*, to recognize the fair value of awards with pro-rata vesting on a straight-line basis over the requisite service period.

Comprehensive Income

Comprehensive income consists of net income (loss) and other comprehensive income, which includes foreign currency translation adjustments and unrealized gains and losses on investments in marketable securities.

The components of accumulated other comprehensive income were as follows:

	June 30,	
	2010	2009
Accumulated foreign currency translation adjustments	\$ 942	\$ 574
Accumulated net unrealized gains on securities		83
Total accumulated other comprehensive income	\$ 942	\$ 657

Foreign Currency

Local currencies are used as the functional currency for the Company's subsidiaries in Europe and Japan. The accounts of foreign subsidiaries are translated using exchange rates in effect at period-end for assets and liabilities and at average exchange rates during the period for results of operations. The related translation adjustments are reported in accumulated other comprehensive income in shareholders' equity. Gains (losses) resulting from foreign currency transactions are included in other income (expense) and were immaterial for all periods presented.

F-15

Table of Contents

Recent Accounting Pronouncements

In March 2010, the FASB ratified ASU 2010-17, *Revenue Recognition Milestone Method (Topic 605): Milestone Method of Revenue Recognition* (FASB ASU 2010-17), which provides guidance related to revenue recognition that applies to arrangements with milestones relating to research or development deliverables. This guidance provides criteria that must be met to recognize consideration that is contingent upon achievement of a substantive milestone in its entirety in the period in which the milestone is achieved. This guidance is effective for the Company on July 1, 2010 and is not expected to have a material impact to its consolidated financial position or results of operations.

C. Stock-Based Compensation

Stock Option Plans

The number of shares authorized for issuance under the Company's 2005 Stock Incentive Plan, as amended and restated (the 2005 Plan) is 4,092 shares, which will be increased by any future cancellations, forfeitures or terminations (other than by exercise) under the Company's 1997 Stock Option Plan (the 1997 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 generally have a term of seven years. There were 2,469 shares available for future grant under the 2005 Plan at June 30, 2010.

The number of shares authorized for issuance under the 1997 Plan was 8,650 shares, of which 100 shares could be issued pursuant to restricted stock grants. The 1997 Plan provided for the grant of non-qualified and incentive stock options and restricted stock to employees and non-employees. All stock options were 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 typically vest over periods of zero to four 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, and the 1997 Plan subsequently expired in June 2007. The foregoing 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

The number of shares authorized for issuance under the Company's 1997 Employee Stock Purchase Plan, as amended and restated (ESPP), is 1,100 shares. Under the ESPP, 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 ESPP permits employees to purchase common stock through payroll deductions, which may not exceed 10% of an employee's compensation as defined in the ESPP. The number of shares issued under the ESPP during fiscal years 2010, 2009 and 2008 was 94, 96 and 99, respectively. Shares available for future purchase under the ESPP totaled 253 at June 30, 2010.

Table of Contents**Stock Option and Award Activity**

The following table summarizes activity of the Company's stock option plans since June 30, 2008:

		Options Outstanding	
	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)
Outstanding at June 30, 2008	3,733	\$ 16.88	6.20
Grants	559	6.68	
Exercises	(22)	7.68	
Cancellations ⁽¹⁾	(1,290)	19.57	
Outstanding at June 30, 2009	2,980	\$ 13.87	5.69
Grants	56	10.41	
Exercises	(130)	7.72	
Cancellations	(294)	17.38	
Outstanding at June 30, 2010	2,612	\$ 13.70	4.69

⁽¹⁾ Options cancelled as part of the Company's shareholder-approved option exchange program, totaling 394 options, are included in the cancellations figure.

Information related to the stock options outstanding as of June 30, 2010 is as follows:

Range of Exercise Prices	Number of Shares	Weighted- Average Remaining Contractual Life (Years)	Weighted- Average Exercise Price	Exercisable Number of Shares	Exercisable Weighted- Average Exercise Price	Exercisable Weighted Average Remaining Contractual Term (Years)
\$ 4.61 \$5.25	275	4.43	\$ 4.96	157	\$ 4.92	
\$ 6.62 \$8.26	351	5.05	\$ 7.76	89	\$ 7.77	
\$ 8.62 \$8.62	371	4.93	\$ 8.62	174	\$ 8.62	
\$10.41 \$12.81	269	5.03	\$ 12.24	245	\$ 12.41	
\$13.07 \$13.07	93	5.39	\$ 13.07	79	\$ 13.07	

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

\$14.14	\$14.14	328	6.86	\$ 14.14	228	\$ 14.14	
\$15.10	\$17.25	277	5.33	\$ 16.53	277	\$ 16.53	
\$19.00	\$19.03	285	2.61	\$ 19.02	285	\$ 19.02	
\$19.48	\$28.00	325	3.28	\$ 24.93	325	\$ 24.93	
\$28.74	\$37.15	38	1.27	\$ 33.00	38	\$ 33.00	
\$ 4.61	\$37.15	2,612	4.69	\$ 13.70	1,897	\$ 15.61	4.46

Options for the purchase of 1,711 and 2,005 shares were exercisable at June 30, 2009 and 2008, respectively, with a weighted-average exercise price of \$17.78 and \$21.13, respectively.

The aggregate intrinsic value of the Company's in-the-money outstanding and exercisable options as of June 30, 2010 and 2009 was \$2,002 and \$428, respectively. The intrinsic value of the options exercised during fiscal year 2010 and 2009 was \$532 and \$24, respectively. Non-vested stock options are subject to the risk of forfeiture until the fulfillment of specified conditions. As of June 30, 2010, there was \$2,406 of total unrecognized compensation cost related to non-vested options granted under the Company's stock plans that is expected to be recognized over a weighted-average

F-17

Table of Contents

period of 1.8 years from June 30, 2010. As of June 30, 2009, there was \$4,552 of total unrecognized compensation cost related to non-vested options granted under the Company's stock plans that was expected to be recognized over a weighted-average period of 2.7 years from June 30, 2009.

The following table summarizes the status of the Company's non-vested restricted stock awards since June 30, 2008:

	Non-vested Restricted Stock Awards	
	Number of Shares	Weighted Average Grant Date Fair Value
Outstanding at June 30, 2008	866	\$ 13.18
Granted ⁽¹⁾	384	5.99
Vested	(375)	13.48
Forfeited	(209)	12.70
Outstanding at June 30, 2009	666	\$ 8.97
Granted	609	10.21
Vested	(325)	10.39
Forfeited	(122)	8.22
Outstanding at June 30, 2010	828	\$ 9.44

⁽¹⁾ Awards issued as a result of the Company's shareholder-approved option exchange program totaling 154 awards, at a weighted-average fair value of \$8.71, are included in the granted figure.

Non-vested restricted stock awards are subject to the risk of forfeiture until the fulfillment of specified conditions. As of June 30, 2010, there was \$6,411 of total unrecognized compensation cost related to non-vested restricted stock awards granted under the Company's stock plans that is expected to be recognized over a weighted-average period of 2.8 years from June 30, 2010. As of June 30, 2009, there was \$4,794 of total unrecognized compensation cost related to non-vested restricted stock awards granted under the Company's stock plans that is expected to be recognized over a weighted-average period of 2.5 years from June 30, 2009.

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 fiscal years 2010, 2009 and 2008 in accordance with FASB ASC 718 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 FASB ASC 718, 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 from continuing operations included in the Company's consolidated statement of operations:

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

	Year Ended June 30,		
	2010	2009	2008
Cost of revenues	\$ 251	\$ 251	\$ 413
Selling, general and administrative	3,145	3,223	6,605
Research and development	620	1,108	1,830
Share-based compensation expense before tax	4,016	4,582	8,848
Income taxes	1,499		
Net compensation expense	\$ 2,517	\$ 4,582	\$ 8,848

F-18

Table of Contents

The following table sets forth the weighted-average key assumptions and fair value results for stock options granted during fiscal years 2010, 2009 and 2008:

	Years Ended June 30,		
	2010	2009	2008
Weighted-average fair value of options granted	\$ 7.17	\$ 3.76	\$ 4.25
Option life ⁽¹⁾	5.0 years	5.5 years	5.0 years
Risk-free interest rate ⁽²⁾	2.38%	2.34%	3.37%
Stock volatility ⁽³⁾	87%	65%	44%
Dividend rate	0%	0%	0%

The following table sets forth the weighted-average key assumptions and fair value results for employees' stock purchase rights during fiscal years 2010, 2009 and 2008:

	Years Ended June 30,		
	2010	2009	2008
Weighted-average fair value of stock purchase rights granted	\$ 3.74	\$ 3.07	\$ 4.50
Option life ⁽¹⁾	6 months	6 months	6 months
Risk-free interest rate ⁽²⁾	0.26%	1.20%	3.03%
Stock volatility ⁽³⁾	77%	108%	59%
Dividend rate	0%	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.

⁽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.

Stock Option Exchange

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

On May 14, 2009, the Company commenced a shareholder-approved stock option exchange program pursuant to which eligible employees were given the opportunity to exchange outstanding options with exercise prices greater than \$10.19 per share for a lesser number of shares of restricted stock in accordance with exchange ratios set forth in the offer to exchange. The Company's Board of Directors and its executive officers were not eligible to participate in the exchange program.

The ratio of the exchange was determined on a value-for-value basis, with the options being exchanged valued using the Black-Scholes model and the restricted stock received in the exchange being valued using the closing price of the Company's common stock on the expiration date of the exchange period. In addition, the restricted stock issued in the exchange will vest over a three year period. On June 17, 2009, Company employees exchanged options to purchase 394 shares for 154 shares of restricted stock. The Company calculated an immaterial amount of incremental stock-based compensation expense as a result of the exchange because the fair value of the options exchanged essentially equaled the fair value of the restricted stock issued. The replacement awards will vest in three equal annual installments commencing on the first anniversary of the date of grant.

F-19

Table of Contents**D. Net Earnings (Loss) Per Share**

The following table sets forth the computation of basic and diluted net earnings (loss) per share:

	Years Ended June 30,		
	2010	2009	2008
Income (loss) from continuing operations basic	\$ 28,069	\$ 7,909	\$ (4,437)
Income (loss) from discontinued operations, net of income taxes	215	(20,328)	(29,971)
Gain (loss) on sale of discontinued operations, net of income taxes	74	11,157	(1,005)
Net income (loss)	\$ 28,358	\$ (1,262)	\$ (35,413)
Shares used in computation of net earnings (loss) per share basic	22,559	22,150	21,639
Effect of dilutive stock options and restricted stock	449	266	
Shares used in computation of net earnings (loss) per share diluted	23,008	22,416	21,639
Net earnings (loss) per share basic			
Continuing operations	\$ 1.25	\$ 0.36	\$ (0.21)
Income (loss) from discontinued operations	0.01	(0.92)	(1.38)
Gain (loss) on sale of discontinued operations		0.50	(0.05)
Net income (loss)	\$ 1.26	\$ (0.06)	\$ (1.64)
Net earnings (loss) per share diluted			
Continuing operations	\$ 1.22	\$ 0.35	\$ (0.21)
Income (loss) from discontinued operations	0.01	(0.91)	(1.38)
Gain (loss) on sale of discontinued operations		0.50	(0.05)
Net income (loss)	\$ 1.23	\$ (0.06)	\$ (1.64)

Weighted average equity instruments to purchase 1,705, 3,768 and 4,240 shares of common stock were not included in the calculation of diluted net earnings (loss) per share for the fiscal years ended June 30, 2010, 2009 and 2008, respectively, because the equity instruments were antidilutive. Additionally, up to 4,135 shares, which represent the securities that had been contingently issuable under the Company's outstanding Notes, were not included in the dilutive net loss per share for the fiscal years ended June 30, 2009, and 2008 because the equity instruments were antidilutive.

E. Marketable Securities and Related Receivables

The Company's investments consist mainly of treasury bills and student loan auction rate securities (ARS). The ARS 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 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.

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Beginning in mid-February 2008, auctions held for the ARS held by the Company failed. As a result, the Company was not able to access these funds, and therefore, the ARS were determined to lack short-term liquidity and were classified as non-current in the consolidated balance sheet. In October 2008, the Company received a rights offering from UBS (the offering) in which the Company elected to participate. By electing to participate in the offering, the Company (1) received the right (put option) to sell these ARS back to UBS at par plus interest, at the Company's sole discretion, during a two-year period beginning on June 30, 2010, and (2) received an option to borrow up to 75% of the fair value of the ARS held by the Company. Upon borrowing against the ARS, the Company forgoes the interest income on the underlying ARS while the borrowings are outstanding and in return is not charged any interest expense.

At the time of the rights offering, the Company elected to measure the put option under the fair value option of FASB ASC 825-10 (FASB ASC 825-10), *Financial Instruments*, previously SFAS No. 159, and recorded income of \$5,030, pre-tax, in fiscal 2009. The Company also transferred these ARS from available-for-sale to trading investment securities.

F-20

Table of Contents

As a result of this transfer, the Company recognized an impairment loss of \$5,073, pre-tax, in fiscal 2009. The recording of the put option and the recognition of the impairment loss resulted in an immaterial impact to the consolidated statement of operations for fiscal 2009. Consistent with the ARS, the Company reclassified the put option from a non-current asset to current as of June 30, 2009.

On June 30, 2010, the Company exercised the put option to sell its remaining \$18,025 ARS balance to UBS at par value. The transaction settled on July 1, 2010. As a result of the transaction, the put option was exercised and the Company had a receivable balance of \$18,025 from UBS as of June 30, 2010. The fair value of the receivable balance represents the quoted market prices at the balance sheet date. The realized net gains on the ARS in fiscal 2010 were not material.

On June 30, 2009, the Company had \$50,062 par value of short-term marketable securities that had a fair market value of \$44,977. The Company's investments in marketable securities as of June 30, 2009, consisted entirely of auction rate securities and had remaining maturities of one year. The realized net gains on the ARS in fiscal 2009 were not material.

F. Fair Value of Financial Instruments

The Company measures at fair value certain financial assets and liabilities, including cash equivalents, restricted cash and ARS. FASB ASC 820 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 June 30, 2010 for the Company's financial instruments:

	Fair Value Measurements			
	June 30, 2010	Level 1	Level 2	Level 3
Assets:				
Money market funds	\$ 52,659	\$ 52,659	\$	\$
Restricted cash	3,000	3,000		
Total	\$ 55,659	\$ 55,659	\$	\$

The following table summarizes the fair value measurements as of June 30, 2009, for the Company's financial instruments, including its ARS:

	Fair Value Measurements			
	June 30, 2009	Level 1	Level 2	Level 3
Assets:				
Money market funds	\$ 38,392	\$ 38,392	\$	\$
Restricted cash	3,000	3,000		
Auction rate securities	44,977			44,977
Put option to sell auction rate securities	5,030			5,030
Total	\$ 91,399	\$ 41,392	\$	\$ 50,007

F-21

Table of Contents

On June 30, 2009, the Company had \$50,007 of ARS and put options to sell ARS classified as level 3 investments. During fiscal 2010, \$32,025 of its ARS were redeemed at par value for cash and it realized \$43 in net gains. The remaining \$18,025 was a receivable from UBS on June 30, 2010 and cash was subsequently received on July 1, 2010.

The fair values of the Company's cash equivalents and restricted cash are determined through market, observable and corroborated sources. The volume and level of activity for these sources has been determined to be sufficient primarily due to the market being active, the quantity of recent transactions, pricing being current and no significant recent increases to certain risk factors, and as such, no adjustments to these sources were needed. The following table provides a rollforward of the fair value of the Company's ARS and related receivables and put option, whose fair values were determined by Level 3 inputs:

	Fair Value
Balance at June 30, 2008	\$ 47,231
Recognition of change in put option value in other income	5,030
Realized losses included in other income	(5,073)
Redemption of ARS	(222)
Change in temporary valuation adjustment included in comprehensive income	3,041
Balance at June 30, 2009	\$ 50,007
Recognition of change in put option value in other income	(2,886)
Realized gains included in other income	2,929
Redemption of ARS	(32,025)
Exercise of put option to redeem remaining ARS	(18,025)
Balance at June 30, 2010	\$

The carrying values of the ARS and related put option reflect changes in the fair value of the underlying securities, which was based on Level 3 unobservable inputs. These unobservable inputs consisted of fair values that were provided by the Company's broker, which were corroborated by a discounted cash flow analysis that the Company performed. The significant assumptions used by the Company in its analysis include interest rate spreads, credit quality, liquidity premiums and other inputs that are current as of the measurement date, including during periods of market dislocations, such as the illiquidity in the ARS market since February 2008. When performing this analysis the Company notes and analyzes for reasonableness any changes in assumptions. Factors that could cause assumptions to change include fluctuations in consumer confidence, which can vary the Company's credit risk discount factor and cause changes to other rates used in the analysis, including the 3-month LIBOR rate. Since the October 2008 election to participate in the rights offering, there have been no material changes in the assumptions used by the Company in its discounted cash flow analysis.

On June 30, 2010, the Company exercised the put option to sell its remaining \$18,025 ARS balance to UBS at par value. The transaction settled on July 1, 2010. As a result of the transaction, the put option was exercised and the Company had a receivable balance of \$18,025 from UBS as of June 30, 2010. The fair value of receivable balance represents the quoted market prices at the balance sheet date.

G. Inventory

Inventory was comprised of the following:

	June 30,	
	2010	2009
Raw materials	\$ 6,287	\$ 5,991
Work in process	6,326	6,240
Finished goods	5,009	4,574
Total	\$ 17,622	\$ 16,805

F-22

Table of Contents

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

H. Restricted Cash

The Company has deposited \$3,000 with its bank as collateral for the landlord pursuant to the sale-lease back transaction entered in April 2007 for the Company's headquarters in Chelmsford, Massachusetts (see Note I). The balance is classified as restricted cash on the accompanying consolidated balance sheet at June 30, 2010 and 2009, and is reflected in non-current assets.

I. Property and Equipment

Property and equipment consisted of the following:

	June 30,	
	2010	2009
Computer equipment and software	\$ 50,680	\$ 64,954
Furniture and fixtures	6,795	6,800
Building and leasehold improvements	1,354	597
Machinery and equipment	2,732	2,084
	61,561	74,435
Less: accumulated depreciation and amortization	(51,263)	(66,475)
	\$ 10,298	\$ 7,960

In fiscal 2010, the Company retired \$20,310 of fully depreciated computer equipment and software assets that were no longer in use by the Company. This retirement was part of an on-going effort by the Company to review and identify all assets that are still in use by the Company, and to retire those that are not.

Depreciation and amortization expense related to property and equipment for the fiscal years ended June 30, 2010, 2009 and 2008 was \$5,147, \$5,640 and \$7,372, respectively.

In March 2008, following the Company's decision to shut down the AUSG reporting unit, the Company reviewed its property and equipment (and other long-lived assets) included in the AUSG reporting unit for impairment based upon the guidance in FASB ASC 360 noting no impairment; however, it was determined that the useful lives of those capital assets were significantly shortened. As a result, beginning in March 2008, the Company accelerated the depreciation on those assets. This accelerated depreciation expense was recorded as a component of restructuring expense in the consolidated statements of operations (see Note R).

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.

F-23

Table of Contents**J. 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. Following the discontinuation and sale of the Biotech business, the VI business and the VSG business, the Company was reorganized into two business units. 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:

- ⁿ Advanced Computing Solutions (ACS). This business unit is focused on specialized, high performance computing solutions with key market segments, including aerospace and defense, semiconductor, and commercial computing. This segment also provides software and customized design services to meet the specified requirements of military and commercial applications.
- ⁿ Mercury Federal Systems (MFS). This business unit is focused on services and support work with the Department of Defense and federal intelligence and homeland security agencies, including designing and engineering new ISR capabilities to address present and emerging threats to U.S. forces.

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 was income (loss) from operations prior to stock compensation expense. As such, stock-based 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 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	MFS	Stock Compensation Expense	Eliminations	Total
YEAR ENDED JUNE 30, 2010					
Net revenues to unaffiliated customers	\$ 188,967	\$ 10,735	\$	\$ 128	\$ 199,830
Intersegment revenues	4,779	336		(5,115)	
Net revenues	\$ 193,746	\$ 11,071	\$	\$ (4,987)	\$ 199,830
Income (loss) from operations	\$ 21,956	\$ (670)	\$ (4,016)	\$ 43	\$ 17,313
Depreciation and amortization expense	\$ 6,829	\$ 28	\$	\$	\$ 6,857
YEAR ENDED JUNE 30, 2009					
Net revenues to unaffiliated customers	\$ 183,393	\$ 5,546	\$	\$	\$ 188,939
Intersegment revenues	1,858	245		(2,103)	
Net revenues	\$ 185,251	\$ 5,791	\$	\$ (2,103)	\$ 188,939
Income (loss) from operations	\$ 13,395	\$ (893)	\$ (4,582)	\$ (173)	\$ 7,747
Depreciation and amortization expense	\$ 8,028	\$ 26	\$	\$	\$ 8,054
YEAR ENDED JUNE 30, 2008					
Net revenues to unaffiliated customers	\$ 188,489	\$ 1,719	\$	\$	\$ 190,208
Intersegment revenues		137		(137)	

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Net revenues	\$ 188,489	\$ 1,856	\$	\$ (137)	\$ 190,208
Income (loss) from operations	\$ 8,082	\$ (4,534)	\$ (8,848)	\$ (91)	\$ (5,391)
Depreciation and amortization expense	\$ 12,334	\$ 184	\$	\$	\$ 12,518

F-24

Table of Contents

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

	US	Europe	Asia Pacific	Eliminations	Total
YEAR ENDED JUNE 30, 2010					
Net revenues to unaffiliated customers	\$ 180,103	\$ 9,960	\$ 9,767	\$	\$ 199,830
Inter-geographic revenues	13,916	789	198	(14,903)	
Net revenues	\$ 194,019	\$ 10,749	\$ 9,965	\$ (14,903)	\$ 199,830
Identifiable long-lived assets	\$ 13,384	\$ 21	\$ 716	\$	\$ 14,121
YEAR ENDED JUNE 30, 2009					
Net revenues to unaffiliated customers	\$ 175,586	\$ 9,823	\$ 3,530	\$	\$ 188,939
Inter-geographic revenues	9,329	966	289	(10,584)	
Net revenues	\$ 184,915	\$ 10,789	\$ 3,819	\$ (10,584)	\$ 188,939
Identifiable long-lived assets	\$ 10,906	\$ 45	\$ 620	\$	\$ 11,571
YEAR ENDED JUNE 30, 2008					
Net revenues to unaffiliated customers	\$ 171,715	\$ 10,058	\$ 8,435	\$	\$ 190,208
Inter-geographic revenues	12,975	721	375	(14,071)	
Net revenues	\$ 184,690	\$ 10,779	\$ 8,810	\$ (14,071)	\$ 190,208
Identifiable long-lived assets	\$ 14,994	\$ 55	\$ 524	\$	\$ 15,573

Foreign revenue is based on the country in which the Company's legal subsidiary is domiciled. Identifiable long-lived assets exclude deferred tax accounts, goodwill, intangible assets and investments in other entities.

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

	Year Ended June 30,		
	2010	2009	2008
Raytheon Company (ACS)	20%	11%	*
Lockheed Martin Corporation (ACS)	17	14	*
Argon ST, Inc. (ACS)	*	13	13%
Northrop Grumman Corporation (ACS)	*	13	13

37%	51%	26%
-----	-----	-----

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

Although the Company typically has several customers from which it derives 10% or more of its revenue, the sales to each of these customers are spread across multiple programs and platforms. For the year ended June 30, 2010, only one program individually comprised 10% or more of the Company's revenues, which was the Aegis program at 15%. For the fiscal years ended June 30, 2009 and 2008, no single program comprised 10% or more of the Company's revenues.

K. Goodwill and Acquired Intangible Assets

The carrying amount of goodwill at June 30, 2010 and June 30, 2009 was \$57,653. In fiscal 2010, there were no triggering events, as defined by FASB ASC 350, which required an interim goodwill impairment test. The Company performs its annual goodwill impairment test in the fourth quarter of each fiscal year.

Goodwill is the amount by which the cost of the acquired net assets in a business acquisition exceeded the fair values of the net identifiable assets on the date of purchase. Goodwill is not amortized in accordance with the requirements of

F-25

Table of Contents

FASB ASC 350, formerly SFAS No. 142, *Goodwill and Other Intangible Assets*. Goodwill is assessed for impairment at least annually, on a reporting unit basis, or more frequently when events and circumstances occur indicating that the recorded goodwill may be impaired.

The Company determines its reporting units in accordance with FASB ASC 350, by assessing whether discrete financial information is available and if management regularly reviews the operating results of that component. Following this assessment, the Company has determined that its reporting units are the same as its operating segments, which, following the divestiture of the VI and VSG operating segments, includes the ACS and the MFS operating segments. As of June 30, 2010 and 2009, the ACS operating segment was the only reporting unit that had a goodwill balance, and as such, the annual impairment analysis was performed for this reporting unit only.

The Company tests goodwill for impairment by evaluating the fair value of the reporting unit as compared to the book value. If the book value of the reporting unit exceeds its fair value, the implied fair value of goodwill is compared with the carrying amount of goodwill. If the carrying amount of goodwill exceeds the implied fair value, an impairment loss is recorded in an amount equal to that excess. For fiscal 2010, this evaluation was performed in the Company's fourth quarter. The evaluation was performed consistent with prior years and relied on a discounted cash flow analysis, which was corroborated by two market-based analyses: one evaluated guideline companies and another that reviewed comparable transactions. For each analysis performed, the fair value of the reporting unit was deemed to be in excess of the book value. The Company also compared the fair value per the discounted cash flow analysis to the Company's market capitalization, noting the market capitalization was consistent with the fair value of the reporting unit. As such, no impairment charge was recorded.

In fiscal 2009, goodwill was determined to be appropriately valued and no impairment charge was recorded.

In April 2008, the Company determined that a triggering event had occurred due to the planned shutdown of the AUSG reporting unit. As such, an impairment analysis was performed in accordance with FASB ASC 350 for the AUSG reporting unit, a component of MFS. 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
JUNE 30, 2010				
Customer relationships	\$ 7,200	\$ (6,891)	\$ 309	5.2 years
Licensing agreements, trademarks and patents	1,300	(786)	514	8.0 years
Non-compete agreements	500	(182)	318	5.0 years
	\$ 9,000	\$ (7,859)	\$ 1,141	
JUNE 30, 2009				
Completed technology	\$ 14,030	\$ (13,321)	\$ 709	3.2 years
Customer relationships	7,270	(5,585)	1,685	5.2 years
Licensing agreements, trademarks and patents	3,506	(3,400)	106	4.6 years
Non-compete agreements	500	(89)	411	5.0 years
	\$ 25,306	\$ (22,395)	\$ 2,911	

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Estimated future amortization expense for acquired intangible assets remaining at June 30, 2010 is \$565 for fiscal 2011, \$256 for fiscal 2012, \$256 for fiscal 2013, and \$64 for fiscal 2014.

The gross carrying amount for acquired intangible assets decreased \$16,306 to \$9,000 at June 30, 2010 from \$25,306 at June 30, 2009. This decrease was primarily related to write offs of the Company's fully amortized assets.

F-26

Table of Contents**L. Debt**

Debt consisted of the following:

	June 30,	
	2010	2009
Borrowings under line of credit	\$	\$ 33,364
Capital lease obligations	142	46
Less: current portion	(53)	(33,408)
Total non-current capital lease obligations	\$ 89	\$ 2

The following summarizes the future cash payment obligations (excluding interest) as of June 30, 2010:

	Year Ending June 30,
2011	\$ 53
2012	58
Thereafter	31
	\$ 142

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 would have matured on May 1, 2024, bearing interest at 2% per year, payable semiannually in arrears in May and November. The Notes were unsecured, ranked equally in right of payment to the Company's existing and future unsecured senior debt, and did not subject the Company to any financial covenants.

Under certain circumstances, the Notes would have been 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 was equal to an initial conversion price of approximately \$30.23 per share. At the option of the holder, the Notes could be converted if, on or prior to May 1, 2019, the closing price of the

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Company's common stock exceeded \$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 exceeded \$36.28. The Notes could have also been converted at the option of the holder if prior to May 1, 2019, the average trading price for the convertible senior notes was less than 98% of the average conversion value for the convertible senior notes during any five consecutive trading-day period. The holders could have required 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 was neither listed nor approved for trading on specified markets. At the Company's option, the Notes could 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.

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 were amortized over the five-year term to May 1, 2009, the first optional redemption date of the debt. For fiscal 2009 and 2008, respectively, additional interest expense from the amortization of these deferred financing costs totaled \$705 and \$846. On February 4, 2009, the Company repurchased \$119,688 (face value) aggregate principal amount from a holder of the Notes. The Company repurchased the Notes for aggregate consideration equal to the principal amount of the Notes plus accrued interest. The Company paid the consideration for the Notes from a combination of cash on hand and the proceeds from the sale of certain U.S. Treasury securities held by the Company.

On May 1, 2009, the Company repurchased the remaining aggregate principal amount outstanding of \$5,312 (face value) of the Notes from the holders of such Notes. The Company repurchased the Notes for aggregate consideration equal to the principal amount of the Notes plus accrued interest. The Company paid the consideration for the Notes from cash on hand. The Company has no further obligations under the Notes, which were cancelled upon repurchase.

F-27

Table of Contents

Borrowings Under UBS Line of Credit

In October 2008, the Company received a rights offering from UBS (the "offering") in which the Company elected to participate. By electing to participate in the offering, the Company (1) received the right to sell the ARS back to UBS at par plus interest, at the Company's sole discretion, during a two-year period beginning on June 30, 2010, and (2) received 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 line of credit included in the offering replaced the Company's previous margin loan facility with UBS. On June 28, 2010, the Company repaid the remaining \$11,349 line of credit balance to UBS. As of June 30, 2010, there were no borrowings against this line of credit. The UBS line of credit terminated on July 1, 2010 upon the settlement of the put option for our ARS.

Senior Secured Credit Facility

On February 12, 2010, the Company entered into a loan and security agreement (the "Loan Agreement") with Silicon Valley Bank (the "Lender"). The Loan Agreement provides for a \$15,000 revolving line of credit (the "Revolver") and a \$20,000 acquisition line (the "Term Loan"). The Revolver is available for borrowing during a two-year period, with interest payable monthly and the principal due at the February 11, 2012 maturity of the Revolver. The Term Loan is available for up to three separate borrowings, with total borrowings not to exceed \$20,000, until February 11, 2012. The Term Loan has interest payments only through the August 1, 2010 payment date, and converts to interest and principal payments starting on the September 1, 2010 payment date through the February 11, 2014 maturity of the Term Loan. As of June 30, 2010, there were no borrowings against the Revolver and Term Loans.

The Loan Agreement bears interest, at the Company's option, at a rate per annum equal to either: (i) the prime rate minus 0.25% to plus 0.25%; or (ii) the LIBOR rate plus 2.75% to 3.25% (in each case, based on the Company's consolidated leverage ratio at the time of borrowing). For prime rate borrowings, the prime rate shall be the greater of: (i) 4.00%; or (ii) the Lender's prime rate. The Company may not have LIBOR credit extensions having more than four different interest periods outstanding at any point in time. The Company is required to pay a fee on the daily unused portion of the Loan Agreement of 0.30% per annum. Borrowings under the Revolver are available for letters of credit, cash management services, working capital, general business purposes and foreign exchange. Borrowings under the Term Loan are available to fund acquisitions.

Borrowings under the Loan Agreement are secured by a first-priority security interest in all of the Company's domestic assets (other than the Company's ARS), including intellectual property, but limited to 65% of the voting stock of foreign subsidiaries. The Company's MFS subsidiary is a guarantor and has granted a security interest in its assets in favor of the Lender. The Lender may require Mercury Computer Systems Limited, the Company's United Kingdom subsidiary, or Nihon Mercury Computer Systems, K.K., the Company's Japanese subsidiary, to provide guarantees in the future if the cash or assets of such subsidiary exceed specified levels.

The Loan Agreement provides for conventional affirmative and negative covenants, including a minimum quick ratio of 1.5 to 1.0. If the Company has less than \$10,000 of cash equivalents in accounts with the Lender in excess of the Company's borrowings under the Loan Agreement, the Company must also satisfy a \$15,000 minimum trailing-four-quarter cash-flow covenant. The minimum cash flow covenant is calculated as the Company's trailing-four quarter adjusted EBITDA (as defined in the Loan Agreement; EBITDA adjusted to add back non-cash stock compensation expenses and other one-time non-cash expenses as approved by the Lender), minus the Company's capital expenditures during such period, and minus taxes paid by the Company in cash during such period. In addition, the Loan Agreement contains certain customary representations and warranties and limits the Company's and its subsidiaries' ability to incur liens, dispose of assets, carry out certain mergers and acquisitions, make investments and capital expenditures and defines events of default and limitations on the Company and its subsidiaries to incur additional debt. The Loan Agreement required the Company to exercise the put option for its ARS within 30 days of June 30, 2010, and to use the proceeds from the ARS to pay off the Company's outstanding borrowings under the Company's existing ARS credit facility with UBS. The Company exercised its put option for their ARS on June 30, 2010 and repaid its borrowings under the existing ARS credit facility on June 28, 2010.

The Company had no borrowings against its Term Loan and Revolver in fiscal 2010 and was in compliance with all covenants in the Loan Agreement as of June 30, 2010.

Table of Contents

M. Commitments and Contingencies

Legal Claims

The Company is subject to 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.

In connection with the divestitures of the Company's former VI, VSG, Biotech and ES/PS businesses, the Company provided indemnification to the buyers of the respective businesses. The Company's indemnification obligations generally cover the buyers for damages resulting from breaches of representations, warranties and covenants contained in the applicable purchase and sale agreement and generally cover pre-closing tax liabilities of the divested businesses. In addition, the Company agreed to indemnify the buyer of the VI business for certain post-closing employee severance expenses. The total paid to the buyer under this obligation was \$344. As of June 30, 2010, this employee severance obligation was closed. The Company's indemnification obligations regarding the divested businesses are generally subject to caps on the Company's obligations.

Guarantees

As part of the sale of the VSG business reported as discontinued operations in fiscal 2009, the Company made certain guarantees to the buyer in regards to retention bonuses to be paid by the buyer if certain VSG employees remain employed with the buyer in accordance with the terms of their severance agreements, typically six months from the closing date. The Company estimated the obligation against this guarantee to be approximately \$730 and accrued this amount as of June 30, 2009. The Company settled this obligation in December 2009, upon the remittance of \$715 to the buyer. As of December 31, 2009, this retention bonus obligation was closed.

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 were terminated prior to December 19, 2008. This guarantee was settled in the second quarter of fiscal 2009 with no material payments made.

Purchase Commitments

In September 2006, the Company entered into a supply agreement with a third-party vendor to purchase certain inventory parts that went on for life. This supply agreement, as subsequently amended, commits the vendor to acquiring and storing approximately \$6,500 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 \$1,900 of the \$6,500. Further, upon expiration of the agreement on August 31, 2012, if the Company does not purchase the full \$6,500 in inventory, it may be required to pay a penalty equal to 35% of the remaining inventory balance. As of June 30, 2010, the remaining minimum commitment related to this agreement was \$1,772, which is the 35% penalty on the remaining inventory balance.

As of June 30, 2010, 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 to approximately \$22,208.

Table of Contents**Lease Commitments**

The Company leases certain facilities, machinery and equipment under various cancelable and non-cancelable operating leases that expire at various dates through fiscal 2017. The leases contain various renewal options. Rental charges are subject to escalation for increases in certain operating costs of the lessor. For tenant improvement allowances and rent holidays, the Company records a deferred rent liability on the consolidated balance sheets and amortizes the deferred rent over the terms of the leases as reductions to rent expense on the consolidated statements of operations. Rental expense during the fiscal years ended June 30, 2010, 2009 and 2008 was \$3,613, \$3,575 and \$3,489, respectively. Minimum lease payments under the Company's non-cancelable operating leases are as follows:

	Year Ending June 30,
2011	\$ 3,040
2012	2,963
2013	2,710
2014	2,402
2015	2,232
Thereafter	3,872
Total minimum lease payments	\$ 17,219

N. Shareholders' Equity**Preferred Stock**

The Company is authorized to issue 1,000 shares of preferred stock with a par value of \$0.01 per share.

Shareholder Rights Plan

The Company has adopted a Shareholder Rights Plan, the purpose of which is, among other things, to enhance the Board's ability to protect the shareholder interests and to ensure that shareholders receive fair treatment in the event any coercive takeover attempt of the Company is made in the future. The following summary description of the Shareholder Rights Plan does not purport to be complete and is qualified in its entirety by reference to the Company's Shareholder Rights Plan, which has been previously filed with the Securities and Exchange Commission as an exhibit to a Registration Statement on Form 8-A.

In connection with the adoption of the Shareholder Rights Plan, the Board of Directors of the Company declared a dividend distribution of one preferred stock purchase right (a "Right") for each outstanding share of common stock to shareholders of record as of the close of business on December 23, 2005. The Rights currently are not exercisable and are attached to and trade with the outstanding shares of common stock. Under the Shareholder Rights Plan, the Rights become exercisable if a person becomes an "acquiring person" by acquiring 15% or more of the outstanding shares of common stock or if a person commences a tender offer that would result in that person owning 15% or more of the common stock. If a person becomes an "acquiring person," each holder of a Right (other than the acquiring person) would be entitled to purchase, at the then-current exercise price, such number of shares of the Company's preferred stock which are equivalent to shares of common stock having a value of twice the exercise price of the Right. If the Company is acquired in a merger or other business combination transaction after any such event, each holder of a Right would then be entitled to purchase, at the then-current exercise price, shares of the acquiring company's common stock having a value of twice the exercise price of the Right.

Stock Net Settlement Program

The Company may net settle shares in connection with the surrender of shares to cover the minimum taxes on vesting of restricted stock. During fiscal 2010, 42 shares were net settled in such transactions for a total cost of \$433, while 89 shares were net settled during fiscal 2009 for a total cost of \$684. Effective May 1, 2010, the Company discontinued the net share settlement practice for settling restricted stock awards.

F-30

Table of Contents**O. Product Warranty Accrual**

All of the Company's product sales generally include a 12 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.

	Fiscal 2010	Fiscal 2009	Fiscal 2008
Beginning balance at July 1,	\$ 1,750	\$ 1,934	\$ 2,455
Accruals for warranties issued during the period	997	2,507	2,182
Settlements made during the period	(1,561)	(2,691)	(2,703)
Ending balance at June 30,	\$ 1,186	\$ 1,750	\$ 1,934

P. Discontinued Operations

In June 2009, the Company closed on the sale of the VSG operating segment for gross consideration of \$12,000 in cash. The sale resulted in a gain of \$6,406 on disposal of the discontinued operation. The gain was primarily comprised of cash proceeds of \$8,231, net of transaction costs, and recognition of a cumulative foreign currency translation gain of \$1,560, offset by net assets of approximately \$3,385. There were no material adjustments to the gain on disposal during fiscal 2010.

In January 2009, the Company completed the sale of the VI operating segment for gross consideration of \$3,000 in cash. Of the proceeds, a total of \$1,100 was held back for general indemnification purposes and employee termination payments incurred by the buyer. Of the total held back, \$344 was used for termination payments, \$423 was used for general indemnification purposes and \$333 was remitted back to the Company. The sale resulted in a gain of \$4,207 on disposal of the discontinued operation. The gain was primarily comprised of expected cash proceeds, net of transaction costs, of \$990 and the recognition of a cumulative foreign currency translation gain of \$3,894, offset by net assets of the business of approximately \$780. There were no material adjustments to the gain on disposal during fiscal 2010. In December 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 perceived decline in the market value for the VI business. Based on this interim evaluation, the carrying amount of goodwill in the VI operating segment exceeded the implied fair value, resulting in a goodwill impairment charge of \$13,016. In December 2008, the Company also recorded an impairment of the customer relationships intangible asset within the VI operating segment of \$1,539.

In September 2008, the Company completed an asset sale of the Biotech business for a \$130 cash payment, which was received in the second quarter of fiscal 2009, and \$300 of preferred shares in the acquiring entity. The Biotech business was previously reported in the results of the MFS operating segment, formerly referred to as the Emerging Business Unit. The sale resulted in a gain of \$328 on disposal of the discontinued operation.

In May 2008, the Company completed the sale of the ES/PS business for \$367 plus future royalties, net of tax. The ES/PS businesses were previously reported in the results of the VI operating segment. The sale resulted in a loss of \$1,005 on disposal of the discontinued operation. The Company benefited from royalty payments through December 2009. These receipts were recorded as gain on sale of discontinued operations, after deducting taxes, when reported to the Company or when the cash is received, whichever was earlier. As of June 30, 2009, total royalty payments received in connection with the sale of the ES/PS business was \$217. 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 provided a guarantee

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

to the buyer which would have covered a portion of the severance costs if the buyer had to sever any ES/PS employees before December 19, 2008. This guarantee was settled in the second quarter of fiscal 2009 with no material payments made. At the time of the sale, the Company reviewed the provisions of the ES/PS sale agreement, specifically the royalty agreement and potential severance obligation, in accordance with EITF 03-13 *Applying the Conditions in Paragraph 42 of FASB No. 144 in Determining Whether to Reporting Discontinued*

F-31

Table of Contents

Operation, which is now part of FASB ASC 205-20, *Presentation of Financial Statements Discontinued Operations*. The Company determined that neither agreement allowed for any continued active involvement with ES/PS nor did it enable the Company to influence the operating or financial policies of ES/PS. As such classification as discontinued operations was deemed appropriate. Following the settlement of the severance obligation and the completion of the royalty agreement, the Company has no further involvement with ES/PS.

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 VI operating segment exceeded the implied fair value, resulting in a \$17,422 impairment charge. The size of the impairment charge was caused primarily by the lack of previously anticipated traction in markets that were previously estimated to be the main growth drivers for the business. This impairment charge is reflected in discontinued operations for fiscal 2008.

In accordance with FASB ASC 360, VSG, VI 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 VSG, VI 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 in income (loss) from discontinued operations were as follows:

	2010	June 30, 2009	2008
VSG			
Revenue	\$	\$ 9,913	\$ 10,975
(Loss) income from discontinued operations before income taxes	\$ (4)	\$ 879	\$ 538
VI			
Revenue	\$	\$ 5,133	\$ 8,721
Income (loss) from discontinued operations before income taxes	\$ 36	\$ (20,298)	\$ (30,867)
Biotech			
Loss from discontinued operations before income taxes	\$	\$ (743)	\$ (2,660)
ES/PS			
Revenue	\$	\$	\$ 3,624
Income from discontinued operations before income taxes	\$	\$	\$ 991

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

	June 30, 2010	June 30, 2009
Accrued expenses, compensation and warranty	\$	\$ 1,207
Deferred revenue		27

Liabilities of discontinued operations	\$	\$ 1,234
--	----	----------

F-32

Table of Contents**Q. Income Tax (Benefit) Expense**

The components of income (loss) before income taxes and income tax (benefit) expense were as follows:

	Year Ended June 30,		
	2010	2009	2008
Income (loss) from continuing operations before income taxes:			
United States	\$ 18,714	\$ 8,465	\$ (1,968)
Foreign	(22)	(447)	1,241
	\$ 18,692	\$ 8,018	\$ (727)
Income tax (benefit) expense from continuing operations:			
Federal:			
Current	\$ (356)	\$ 1,577	\$ 1,379
Deferred	(8,286)	(1,651)	1,565
	(8,642)	(74)	2,944
State:			
Current	98	253	130
Deferred	(711)	(142)	134
	(613)	111	264
Foreign:			
Current	(122)	72	502
Deferred			
	(122)	72	502
	\$ (9,377)	\$ 109	\$ 3,710

The following is the reconciliation between the statutory federal income tax rate and the Company's effective income tax rate from continuing operations:

Year Ended June 30,
2010 2009 2008

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Income taxes at federal statutory rates	35.0%	35.0%	(35.0)%
State income tax, net of federal tax benefit	0.5	3.2	17.9
Research and development credits	(5.9)	(24.8)	(123.8)
Deemed repatriation of foreign earnings	(1.4)		
Equity compensation	1.8	10.2	58.5
IRS Audit Adjustments	(1.5)	2.9	
Goodwill impairment	0.4		5.0
Valuation allowance	(79.8)	(19.3)	595.6
Other	0.7	(5.9)	(7.9)
	(50.2)%	1.3%	510.3%

F-33

Table of Contents

The components of the Company's net deferred tax assets (liabilities) were as follows:

	June 30,	
	2010	2009
Deferred tax assets:		
Receivable allowances and inventory valuations	\$ 4,497	\$ 5,143
Accrued compensation	1,249	1,151
Equity compensation	5,341	4,661
Property and equipment depreciation		716
Federal and state research and development tax credit carryforwards	10,040	7,655
Net operating loss	1,150	1,543
Gain on sale-leaseback	2,995	2,243
Other temporary differences	452	888
	25,724	24,000
Valuation allowance	(7,555)	(22,394)
Total deferred tax assets	18,169	1,606
Deferred tax liabilities:		
Deferred revenue	(6,615)	
Property and equipment depreciation	(316)	
Acquired intangible assets	(426)	(492)
Total deferred tax liabilities	(7,357)	(492)
Net deferred tax assets (liabilities)	\$ 10,812	\$ 1,114

At June 30, 2009 a majority of the Company's U.S. deferred tax assets had a full valuation allowance. The valuation allowance was \$7,555 as of June 30, 2010 and \$22,394 as of June 30, 2009. In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considered the scheduled reversal of deferred tax liabilities (including the impact of available carryback and carryforward periods) and projected future taxable income. In order to fully realize the deferred tax asset, the Company will need to generate future taxable income of approximately \$28,453 prior to the expiration of the deferred tax assets for net operating loss carryforwards and federal research and development tax credits which begin to expire in 2017. Based upon projections for future taxable income over the periods in which the deferred tax assets are deductible, management believes it is more likely than not that the Company will realize the benefits of a substantial portion of these deductible differences, net of the existing valuation allowances at June 30, 2010. The change in the valuation allowance during fiscal 2010 was \$14,839, which included a June 30, 2010 release of \$7,352 of valuation allowance. The remaining change in the valuation allowance is due to the current year changes in net deferred taxes. The amount of the deferred tax assets considered realizable, however, could be reduced in the near term if estimates of future taxable income during the carryforward period are reduced.

The Company continues to record a full valuation allowance on Massachusetts research and development (R&D) tax credits as of June 30, 2010. In fiscal 2010, management determined that it was more likely than not that most of the deferred tax assets would be realized and the valuation allowance has been released on all domestic deferred tax assets except state R&D tax credits.

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

At June 30, 2010, the Company had federal and state net operating loss carryforwards of \$3,027. The Company also had federal and state research and development credit carryforwards of \$2,485 and \$11,623 respectively, which will begin to expire in 2011 and 2019, respectively. As of June 30, 2010, the Company also had approximately \$723 in foreign operating loss carryforwards.

At June 30, 2009, the Company had federal and state net operating loss carryforwards of \$4,062. The Company also had federal and state research and development credit carryforwards of \$939 and \$10,332 respectively, which will begin to expire in 2010 and 2018, respectively. As of June 30, 2009, the Company also had approximately \$688 in foreign net operating loss carryforwards.

F-34

Table of Contents

The Company files income tax returns in all jurisdictions in which it operates. The Company has established reserves to provide for additional income taxes that may be due in future years as these previously filed tax returns are audited. These reserves have been established based upon management's assessment as to the potential exposures. All tax reserves are analyzed quarterly and adjustments are made as events occur and warrant modification.

Upon consideration of changing business conditions and cash position in its foreign subsidiaries, management has determined that it would no longer need to reinvest permanently the earnings of certain foreign subsidiaries. Therefore, the Company has accrued deferred taxes in association with the deemed repatriation of such earnings.

In June 2006, FASB Interpretation No. 48, *Accounting for Uncertainty in Income Taxes* (FIN 48), which is now part of FASB ASC 740, *Accounting for Income Taxes* (FASB ASC 740) was issued. The interpretation clarifies the accounting for uncertainty in income taxes recognized in a company's financial statements and prescribes a recognition threshold and measurement attribute criteria for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. The interpretation also provides guidance on de-recognition, classification, interest and penalties, accounting in interim periods, disclosure and transition.

The Company adopted FASB ASC 740 on July 1, 2007 and as a result of adoption, the Company had no material change in its liability for unrecognized tax benefits. The changes in the Company's reserves for unrecognized income tax benefits were summarized as follows:

	Year Ended June 30,	
	2010	2009
Unrecognized tax benefits, beginning of period	\$ 1,069	\$ 819
Increases for previously recognized positions	340	568
Settlements of previously recognized positions	(568)	
Decreases for previously recognized positions	(41)	(390)
Increases for currently recognized positions	1,056	72
Unrecognized tax benefits, end of period	\$ 1,856	\$ 1,069

The Company believes that, if released, the \$1,856 of unrecognized tax benefits as of June 30, 2010 would affect the effective tax rate.

The Company has analyzed filing positions in all of the federal and state jurisdictions where it is required to file income tax returns, as well as all open tax years in these jurisdictions. The Company has reviewed the tax positions taken on returns filed domestically and in its foreign jurisdictions for all open years, generally 2006 through 2009, and believes that tax adjustments in any audited year will not be material.

The Company expects that there will not be any material changes in its reserves for unrecognized tax benefits within the next 12 months.

During 2010, the Company closed its most recent IRS audit. Currently there are no material tax audits underway.

It is the Company's policy to recognize interest and penalties accrued on any unrecognized tax benefits as a component of income tax expense. As of the date of adoption of FASB ASC 740, the Company did have accrued interest and did not have any accrued penalties associated with any unrecognized tax benefits. For fiscal 2010, the Company recognized interest of \$5 and no penalties. As of June 30, 2009, the Company had (\$21) of accrued interest and had (\$39) of accrued penalties associated with its unrecognized tax benefits.

R. Restructuring Provision

In July 2009, the Company announced a restructuring plan within the ACS business unit, which was enacted following the completion of the Company's divestitures as part of the Company's reorganization of part of its business operations. The Company recorded an expense of \$231 in fiscal 2010 against this plan, which included severance costs associated with the elimination of four positions.

F-35

Table of Contents

In fiscal 2008, the Company announced two restructuring plans, one within the ACS business unit (ACS Plan) and one within the former Emerging Businesses Unit (AUSG Plan).

The ACS Plan was enacted to reduce payroll and overhead costs to realign costs with the Company's revenue base, particularly in regards to its commercial portfolio. In fiscal 2009, this plan was amended to include an increase in restructuring expense of \$1,675. 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 AUSG Plan was enacted in March 2008 to reduce the financial losses of the AUSG reporting unit and was amended to include an additional provision for restructuring charges in April 2008 following the shutdown of the AUSG reporting unit. A gross provision of \$1,507 was recorded during fiscal 2008, primarily due to the elimination of 12 positions. The AUSG Plan was amended in fiscal 2009 to include a provision of \$37 for additional restructuring expense.

All of the restructuring charges are classified as operating expenses in the consolidated statements of operations and any remaining obligations 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, 2008	\$ 2,184	\$ 41	\$	\$ 2,225
ACS provision	1,532		143	1,675
MFS (AUSG) provision		37		37
Total provision	1,532	37	143	1,712
Cash paid	(2,853)	(43)	(37)	(2,933)
Reversals and currency exchange impact	(47)			(47)
Restructuring liability at June 30, 2009	816	35	106	957
ACS provision	253		19	272
Cash paid	(1,054)	(35)	(96)	(1,185)
Reversals	(12)		(29)	(41)
Restructuring liability at June 30, 2010	\$ 3	\$	\$	\$ 3

S. Sale of Long-Lived Asset

In April 2008, the Company exclusively licensed certain intellectual property associated with its AUSG reporting unit (a component of MFS) 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 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 June 30, 2009, the buyer elected to purchase \$480 of AUSG inventory as allowed under the agreement.

T. Employee Benefit Plans

The Company maintains a qualified 401(k) plan (the 401(k) Plan) for its U.S. employees. The 401(k) Plan covers U.S. employees who have attained the age of 21. Employee contributions to the 401(k) Plan may range from 1% to 15% of eligible compensation. During fiscal 2010, 2009 and 2008, the Company matched employee contributions up to 3% of eligible compensation. The Company may also make optional contributions to the plan for any plan year at its discretion. Expense recognized by the Company for matching contributions related to the 401(k) plan was \$1,569, \$1,561 and \$1,728 during the fiscal years ended June 30, 2010, 2009 and 2008, respectively.

F-36

Table of Contents

The Company had a deferred compensation plan that allowed eligible employees to defer up to 35% of their total compensation. Increases or decreases in the value of the deferred compensation plan assets were recorded as selling, general and administrative expense in the consolidated statement of operations, while increases or decreases in the value of the deferred compensation plan liabilities were recorded as other income (expense). In December 2008, the Company closed the deferred compensation plan, with all participants fully cashed out in January 2009. At June 30, 2008, the Company had a liability of \$1,709 relating to amounts owed under the deferred compensation plan that were classified as long-term liabilities in the consolidated balance sheet and had an asset of \$1,329, classified as other non-current assets in the consolidated balance sheet.

U. Related Party Transactions

In July 2008, the Company and our former CEO, James Bertelli, entered into an agreement for consulting services through June 30, 2010. The consideration for these services totaled \$190 and was paid out over the service period. As of June 30, 2010, the Company had made payments of \$190 for consulting services under this agreement. Additionally, in July 2008, the Company entered into a five year non-compete agreement with Mr. Bertelli. This agreement, which is carried as an intangible asset on the Company's balance sheet, was valued at \$500 and is being amortized over the life of the agreement. As of June 30, 2010, the Company had made payments of \$375 under this non-compete agreement.

V. Subsequent Events

The Company has evaluated subsequent events from the date of the consolidated balance sheet through the date the financial statements were issued.

Table of Contents**Supplementary Information (Unaudited)**

The following sets forth certain unaudited consolidated quarterly statements of operations data for each of the Company's last eight quarters as restated for discontinued operations. In management's opinion, this quarterly information reflects all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation for the periods presented. Such quarterly results are not necessarily indicative of future results of operations and should be read in conjunction with the audited consolidated financial statements of the Company and the notes thereto included elsewhere herein.

2010 (In thousands, except per share data)	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER
Net revenues	\$ 47,431	\$ 45,158	\$ 43,603	\$ 63,638
Cost of revenues	20,129	19,293	18,800	29,076
Gross margin	27,302	25,865	24,803	34,562
Operating expenses:				
Selling, general and administrative	11,344	13,485	12,538	14,152
Research and development	10,196	9,901	10,629	10,822
Amortization of acquired intangible assets	434	434	434	408
Impairment of long-lived assets		150	61	
Restructuring	273	(19)	(11)	(12)
Total operating expenses	22,247	23,951	23,651	25,370
Income from operations	5,055	1,914	1,152	9,192
Interest income	79	163	195	95
Interest expense	(57)	(113)	(147)	(64)
Other income, net	254	281	264	429
Income from operations before income taxes	5,331	2,245	1,464	9,652
Income tax expense (benefit)	906	330	(2,235)	(8,378)
Net income from continuing operations	4,425	1,915	3,699	18,030
Income (loss) from discontinued operations, net of income taxes	30	(15)	(423)	623
(Loss) gain on sale of discontinued operations, net of income taxes	(97)	171		
Net income	\$ 4,358	\$ 2,071	\$ 3,276	\$ 18,653
Net earnings (loss) per common share:				
Basic net earnings (loss) per share:				
Continuing operations	\$ 0.20	\$ 0.08	\$ 0.16	\$ 0.79
Income (loss) from discontinued operations			(0.02)	0.03
(Loss) gain on sale of discontinued operations	(0.01)	0.01		
Net income	\$ 0.19	\$ 0.09	\$ 0.14	\$ 0.82
Diluted net earnings (loss) per share:				

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Continuing operations	\$	0.19	\$	0.08	\$	0.16	\$	0.77
Income (loss) from discontinued operations						(0.02)		0.03
(Loss) gain on sale of discontinued operations				0.01				
Net income	\$	0.19	\$	0.09	\$	0.14	\$	0.80

F-38

Table of Contents

Significant quarterly items for fiscal 2010 include the following: (i) in the third quarter, \$1.1 million of acquired net operating losses was utilized; and (ii) in the fourth quarter, \$19.1 million of revenue was recognized on a single Aegis program order and \$7.4 million of the valuation allowance for U.S. deferred tax assets was reversed.

2009 (In thousands, except per share data)	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER
Net revenues	\$ 44,840	\$ 45,094	\$ 50,563	\$ 48,442
Cost of revenues	19,913	19,690	21,380	22,526
Gross margin	24,927	25,404	29,183	25,916
Operating expenses:				
Selling, general and administrative	12,085	13,929	12,584	12,587
Research and development	10,251	11,632	11,118	9,371
Amortization of acquired intangible assets	1,010	447	498	459
In-process research and development				
Impairment of long-lived assets				
Restructuring	239	235	239	999
Gain on sale of long-lived assets				
Total operating expenses	23,585	26,243	24,439	23,416
Income (loss) from operations	1,342	(839)	4,744	2,500
Interest income	995	686	239	139
Interest expense	(838)	(945)	(497)	(271)
Other (expense) income, net	(146)	(119)	317	711
Income (loss) from operations before income taxes	1,353	(1,217)	4,803	3,079
Income tax expense			101	8
Net Income (loss) from continuing operations	1,353	(1,217)	4,702	3,071
Loss from discontinued operations, net of income taxes	(3,129)	(15,863)	(704)	(632)
Gain on sale of discontinued operations, net of income taxes	472	16	4,152	6,517
Net (loss) income	\$ (1,304)	\$ (17,064)	\$ 8,150	\$ 8,956
Net earnings (loss) per common share:				
Basic net earnings (loss) per share:				
Continuing operations	\$ 0.06	\$ (0.05)	\$ 0.21	\$ 0.14
Loss from discontinued operations	(0.14)	(0.72)	(0.03)	(0.03)
Gain on sale of discontinued operations	0.02		0.19	0.29
Net (loss) income	\$ (0.06)	\$ (0.77)	\$ 0.37	\$ 0.40
Diluted net earnings (loss) per share:				
Continuing operations	\$ 0.06	\$ (0.05)	\$ 0.21	\$ 0.14
Loss from discontinued operations	(0.14)	(0.72)	(0.03)	(0.03)

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Gain on sale of discontinued operations		0.02			0.18		0.29
Net (loss) income	\$	(0.06)	\$	(0.77)	\$	0.36	\$ 0.40

Significant quarterly items for fiscal 2009 include the following: (i) in the fourth quarter restructuring charges of \$1.0 million were incurred, (ii) in the fourth quarter a \$6.4 million gain was recorded related on the sale of the VSG business unit, (iii) in the third quarter the Company sold its VI business unit resulting in a gain on sale of discontinued operations of \$4.2 million, (iv) in the third and fourth quarters interest income decreased primarily due to decreased interest earned on the Company's auction rate securities, and (v) in the third and fourth quarter interest expense decreased primarily due to the payoff of the Company's \$125.0 million aggregate principal amount of Notes. Prior periods' results have been restated to reclassify all discontinued operations activity to the income from discontinued operations line in the consolidated statement of operations.

F-39

Table of Contents**Mercury Computer Systems, Inc.****Consolidated Balance Sheets**

(In thousands, except share and per share data)

(Unaudited)

	December 31, 2010	June 30, 2010
Assets		
Current assets:		
Cash and cash equivalents	\$ 88,437	\$ 56,241
Marketable securities and related receivables		18,025
Accounts receivable, net of allowance for doubtful accounts of \$163 at December 31, 2010 and June 30, 2010	28,919	36,726
Unbilled receivables	3,883	6,938
Inventory	20,634	17,622
Deferred tax assets	4,957	5,393
Prepaid income taxes	746	2,546
Prepaid expenses and other current assets	2,334	2,363
Total current assets	149,910	145,854
Restricted cash	3,000	3,000
Property and equipment, net	11,061	10,298
Goodwill	57,653	57,653
Acquired intangible assets, net	3,250	1,141
Deferred tax assets	5,049	5,419
Other non-current assets	1,711	973
Total assets	\$ 231,634	\$ 224,338
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	\$ 5,723	\$ 10,533
Accrued expenses	5,492	5,197
Accrued compensation	10,709	10,723
Income taxes payable	697	220
Deferred revenues	6,232	7,932
Total current liabilities	28,853	34,605
Deferred gain on sale-leaseback	6,135	6,713
Income taxes payable	1,798	1,836
Other non-current liabilities	1,945	2,072
Total liabilities	38,731	45,226
Commitments and contingencies (Note N)		
Shareholders' equity:		
Preferred stock, \$.01 par value; 1,000,000 shares authorized; no shares issued or outstanding		

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Common stock, \$.01 par value; 85,000,000 shares authorized; 23,228,727 and 22,883,314 shares issued and outstanding at December 31, 2010 and June 30, 2010, respectively	232	229
Additional paid-in capital	115,005	110,270
Retained earnings	76,484	67,671
Accumulated other comprehensive income	1,182	942
 Total shareholders' equity	 192,903	 179,112
 Total liabilities and shareholders' equity	 \$ 231,634	 \$ 224,338

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

F-40

Table of Contents**Mercury Computer Systems, Inc.****Consolidated Statements of Operations**

(In thousands, except per share data)

(Unaudited)

	Three Months Ended December 31,		Six Months Ended December 31,	
	2010	2009	2010	2009
Net revenues	\$ 55,513	\$ 45,158	\$ 107,621	\$ 92,589
Cost of revenues	23,873	19,293	45,321	39,422
Gross margin	31,640	25,865	62,300	53,167
Operating expenses:				
Selling, general and administrative	14,019	13,485	28,216	24,829
Research and development	10,479	9,901	21,378	20,097
Impairment of long-lived assets		150		150
Amortization of acquired intangible assets	317	434	636	868
Restructuring		(19)		254
Acquisition costs and other related expenses	307		307	
Total operating expenses	25,122	23,951	50,537	46,198
Income from operations	6,518	1,914	11,763	6,969
Interest income	6	163	13	242
Interest expense	(49)	(113)	(58)	(170)
Other income, net	404	281	920	535
Income from continuing operations before income taxes	6,879	2,245	12,638	7,576
Income tax expense	1,696	330	3,773	1,236
Income from continuing operations	5,183	1,915	8,865	6,340
(Loss) income from discontinued operations, net of income taxes		(15)	(52)	15
Gain on sale of discontinued operations, net of income taxes		171		74
Net income	\$ 5,183	\$ 2,071	\$ 8,813	\$ 6,429
Basic net earnings (loss) per share:				
Income from continuing operations	\$ 0.22	\$ 0.08	\$ 0.39	\$ 0.28
(Loss) income from discontinued operations			(0.01)	
Gain on sale of discontinued operations		0.01		0.01
Net income	\$ 0.22	\$ 0.09	\$ 0.38	\$ 0.29
Diluted net earnings (loss) per share:				
Income from continuing operations	\$ 0.22	\$ 0.08	\$ 0.37	\$ 0.28

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

(Loss) income from discontinued operations				
Gain on sale of discontinued operations		0.01		
Net income	\$ 0.22	\$ 0.09	\$ 0.37	\$ 0.28
Weighted-average shares outstanding:				
Basic	23,099	22,500	23,021	22,450
Diluted	23,998	22,870	23,704	22,806
Comprehensive income:				
Net income	\$ 5,183	\$ 2,071	\$ 8,813	\$ 6,429
Foreign currency translation adjustments	73	(42)	239	13
Net unrealized loss on securities				(83)
Total comprehensive income	\$ 5,256	\$ 2,029	\$ 9,052	\$ 6,359

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

F-41

Table of Contents**Mercury Computer Systems, Inc.****Consolidated Statements of Cash Flows**

(In thousands)

(Unaudited)

	Six Months Ended December 31,	
	2010	2009
Cash flows from operating activities:		
Net income	\$ 8,813	\$ 6,429
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	3,616	3,346
Stock-based compensation	2,923	2,025
Provision (benefit) for deferred income taxes	806	(1,810)
Excess tax benefit from stock-based compensation, net of APIC pool	(787)	(614)
Gain on sale of discontinued operations		(74)
Impairment of long-lived assets		150
Other non-cash items	(428)	(691)
Changes in operating assets and liabilities:		
Accounts receivable, net	11,112	(2,647)
Inventory	(2,988)	(77)
Prepaid expenses and other current assets	(439)	818
Prepaid income taxes	1,800	
Other assets	(722)	(30)
Accounts payable and accrued expenses	(4,909)	186
Deferred revenues	(1,613)	(526)
Income taxes payable	426	643
Other non-current liabilities	(157)	646
Net cash provided by operating activities	17,453	7,774
Cash flows from investing activities:		
Sales and maturities of marketable securities	18,025	850
Purchases of property and equipment	(3,598)	(2,800)
Payments on sale of discontinued operations		(707)
Payments for acquired intangible assets	(2,175)	(125)
Net cash provided by (used in) investing activities	12,252	(2,782)
Cash flows from financing activities:		
Proceeds from employee stock plans	1,585	823
Payments under line of credit		(648)
Payments of deferred financing activities		(125)
Excess tax benefit from stock-based compensation	1,017	614
Repurchases of common stock		(367)
Payments of capital lease obligations	(136)	(45)

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Net cash provided by financing activities	2,466	252
Effect of exchange rate changes on cash and cash equivalents	25	3
Net increase in cash and cash equivalents	32,196	5,247
Cash and cash equivalents at beginning of period	56,241	46,950
Cash and cash equivalents at end of period	\$ 88,437	\$ 52,197
Cash paid during the period for:		
Interest	\$ 12	\$
Income taxes, net	\$ 389	\$ 2,171
Supplemental disclosures non-cash activities:		
Issuance of restricted stock awards to employees	\$ 7,126	\$ 5,369
Acquisition of intangible assets	\$ 495	\$
Capital lease	\$ 251	\$

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

Table of Contents

Mercury Computer Systems, Inc.

Notes to Consolidated Financial Statements

(Amounts in thousands, except per share data)

(Unaudited)

A. Description of Business

Mercury Computer Systems, Inc. (the Company or Mercury) designs, manufactures and markets high-performance embedded, real-time digital signal and image processing systems and software for specialized defense and commercial computing markets. The Company's 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, the Company's systems process real-time radar, video, sonar and signals intelligence data. The Company's systems are also used in semiconductor imaging applications, including photomask generation and wafer inspection. The Company also provides radio frequency products for enhanced communications capabilities in military and commercial applications. Additionally, the Company entered the defense prime contracting market space in fiscal 2008 through the creation of its wholly-owned subsidiary, Mercury Federal Systems, Inc., (MFS) to focus on reaching the federal intelligence and homeland security agencies.

The Company's products and solutions address mission-critical requirements within the defense industry for C4ISR (command, control, communications, computers, intelligence, surveillance and reconnaissance) and electronic warfare, or EW, systems and services, which target several markets including maritime defense, airborne reconnaissance, ballistic missile defense, ground mobile and force protection systems, and tactical communications and network systems. The Company's products are deployed in over 300 different programs across 26 different prime defense contractors.

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 consolidated financial statements and related notes for the fiscal year ended June 30, 2010 which are contained in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission (SEC) on August 19, 2010. The results for the three and six months ended December 31, 2010 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.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the dates of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates.

Recently Adopted Accounting Pronouncements

Effective March 31, 2010, the Financial Accounting Standards Board (FASB) amended Accounting Standard Codification (ASC) Topic 350, *Intangibles Goodwill and Other* (FASB ASC 350), formerly FASB Statement No. 142, *Goodwill and Other Intangible Assets*, paragraph 20-50, *Goodwill Disclosures*, to require an entity to disclose

Table of Contents

accumulated goodwill impairment losses in the rollforward of goodwill for years beginning after December 15, 2008. The FASB staff clarified that the intent of the amendment was to include accumulated goodwill impairment losses in the rollforward from the adoption date of FASB ASC 350. There are no accumulated goodwill impairment losses at December 31, 2010.

C. Multiple-Deliverable Arrangements

The Company enters into multiple-deliverable arrangements that may include a combination of hardware components, related integration or other services. These arrangements generally do not include any performance-, cancellation-, termination- or refund-type provisions. Total revenue recognized under multiple-deliverable revenue arrangements in the three and six months ended December 31, 2010 was approximately 48% and 51% of total revenues, respectively. Revenue recognized under multiple-deliverable arrangements in the three and six months ended December 31, 2009 was approximately 52% and 56% of total revenues, respectively. The majority of the Company's multiple-deliverable revenue arrangements typically ship complete within the same quarter.

Each deliverable within the Company's multiple-deliverable revenue arrangements is accounted for as a separate unit of accounting under the guidance of the FASB Accounting Standards Update (ASU) 2009-13 if both of the following criteria are met: the delivered item or items have value to the customer on a standalone basis; and for an arrangement that includes a general right of return relative to the delivered item(s), delivery or performance of the undelivered item(s) is considered probable and substantially in the control of the Company. The Company considers a deliverable to have standalone value if the item is sold separately by the Company or another vendor or could be resold by the customer. Further, the Company's revenue arrangements generally do not include a general right of return relative to delivered products.

Deliverables not meeting the criteria for being a separate unit of accounting are combined with a deliverable that does meet that criterion. The appropriate allocation of arrangement consideration and recognition of revenue is then determined for the combined unit of accounting.

The Company allocates arrangement consideration to each deliverable in an arrangement based on its relative selling price. The Company determines the selling price of its deliverables based on the following hierarchy: (1) vendor-specific objective evidence (VSOE) if available; (2) third-party evidence (TPE) if VSOE is not available; and (3) best estimated selling price (BESP) if neither VSOE nor TPE is available. The Company is not able to establish TPE due to the nature of the markets in which the Company competes, and, as such, the Company determines selling price using VSOE or BESP.

VSOE is generally limited to the price charged when the same or similar product is sold separately or, if applicable, the stated substantive renewal rate in the agreement. If a product or service is seldom sold separately, it is unlikely that the Company can determine VSOE for the product or service. The Company defines VSOE as a median price of recent standalone transactions that are priced within a narrow range, as defined by the Company.

The Company's determination of BESP involves a weighting of several factors based on the specific facts and circumstances of the arrangement. Specifically, the Company considers the cost to produce the deliverable, the anticipated margin on that deliverable, the selling price and profit margin for similar parts, the Company's ongoing pricing strategy and policies (as evident in the price list as established and updated on a regular basis), the value of any enhancements that have been built into the deliverable and the characteristics of the varying markets in which the deliverable is sold. The Company will determine BESP for deliverables in future agreements based on the specific facts and circumstances of each arrangement.

The Company analyzes the selling prices used in its allocation of arrangement consideration at a minimum on an annual basis. Selling prices are analyzed on a more frequent basis if a significant change in the Company's business necessitates a more timely analysis or if the Company experiences significant fluctuations in the selling prices of its products.

Table of Contents**D. Net Earnings (Loss) Per Share**

The following table sets forth the computation of basic and diluted net earnings (loss) per share:

	Three Months Ended December 31,		Six Months Ended December 31,	
	2010	2009	2010	2009
Income from continuing operations	\$ 5,183	\$ 1,915	\$ 8,865	\$ 6,340
(Loss) income from discontinued operations, net of income taxes		(15)	(52)	15
Gain on sale of discontinued operations, net of income taxes		171		74
Net income	\$ 5,183	\$ 2,071	\$ 8,813	\$ 6,429
Shares used in computation of net earnings (loss) per share basic	23,099	22,500	23,021	22,450
Effect of dilutive equity instruments	899	370	683	356
Shares used in computation of net earnings (loss) per share diluted	23,998	22,870	23,704	22,806
Net earnings (loss) per share basic				
Income from continuing operations	\$ 0.22	\$ 0.08	\$ 0.39	\$ 0.28
(Loss) income from discontinued operations			(0.01)	
Gain on sale of discontinued operations		0.01		0.01
Net income	\$ 0.22	\$ 0.09	\$ 0.38	\$ 0.29
Net earnings (loss) per share diluted				
Income from continuing operations	\$ 0.22	\$ 0.08	\$ 0.37	\$ 0.28
(Loss) income from discontinued operations				
Gain on sale of discontinued operations		0.01		
Net income	\$ 0.22	\$ 0.09	\$ 0.37	\$ 0.28

Weighted average equity instruments to purchase 767 and 945 shares of common stock were not included in the calculation of diluted net earnings per share for the three and six months ended December 31, 2010, respectively, because the equity instruments were anti-dilutive. Weighted average equity instruments to purchase 1,701 and 2,049 shares of common stock were not included in the calculation of diluted net earnings per share for the three and six months ended December 31, 2009, respectively, because the equity instruments were anti-dilutive.

E. Marketable Securities and Related Receivables

The Company has no marketable securities and related receivables at December 31, 2010. The Company's cash and cash equivalents are invested in money market funds at highly rated financial institutions and all the Company's holdings are considered level 1 financial instruments valued at fair value determined through market, observable, and corroborated sources.

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

On June 30, 2010, the Company exercised the put option to sell its remaining \$18,025 auction rate securities (ARS) balance to UBS at par value. The transaction settled on July 1, 2010. As a result of the transaction, the Company had a receivable balance of \$18,025 from UBS as of June 30, 2010. The receivable balance was considered a level 1 financial instrument and its fair value was equivalent to the cash that was received on July 1, 2010. The realized net gains on the ARS in fiscal 2010 were not material.

F-45

Table of Contents**F. 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:

	December 31, 2010	June 30, 2010
Raw materials	\$ 7,336	\$ 6,287
Work in process	7,427	6,326
Finished goods	5,871	5,009
Total	\$ 20,634	\$ 17,622

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

G. Property and Equipment

Property and equipment consisted of the following:

	December 31, 2010	June 30, 2010
Computer equipment and software	\$ 49,718	\$ 50,680
Furniture and fixtures	6,867	6,795
Building and leasehold improvements	1,445	1,354
Machinery and equipment	3,228	2,732
	61,258	61,561
Less: accumulated depreciation	(50,197)	(51,263)
	\$ 11,061	\$ 10,298

Depreciation expense related to property and equipment for the three and six months ended December 31, 2010 was \$1,552 and \$2,980, respectively. Depreciation expense related to property and equipment for the three and six months ended December 31, 2009 was \$1,224 and \$2,478, respectively.

H. Goodwill and Acquired Intangible Assets

The carrying amount of goodwill at December 31, 2010 and June 30, 2010 was \$57,653. In the six months ended December 31, 2010, there were no triggering events, as defined by FASB ASC Topic 350, *Intangibles - Goodwill and Other* (FASB ASC 350), which required an interim goodwill impairment test. The Company performs its annual goodwill impairment test in the fourth quarter of each fiscal year.

The Company determines its reporting units in accordance with FASB ASC 350, by assessing whether discrete financial information is available and if management regularly reviews the operating results of that component. Following this assessment, the Company determined that its reporting units are the same as its operating segments, Advanced Computing Solutions (ACS) and MFS. As of June 30, 2010, ACS was the only reporting unit that had a goodwill balance, and as such, the annual impairment analysis was performed for this reporting unit only.

F-46

Table of Contents

Acquired intangible assets consisted of the following:

	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Weighted Average Useful Life
DECEMBER 31, 2010				
Customer relationships	\$ 7,200	\$ (7,200)	\$	5.2 years
Licensing agreements, trademarks and patents	4,046	(1,067)	2,979	5.5 years
Non-compete agreements	500	(229)	271	5.0 years
	\$ 11,746	\$ (8,496)	\$ 3,250	
JUNE 30, 2010				
Customer relationships	\$ 7,200	\$ (6,891)	\$ 309	5.2 years
Licensing agreements, trademarks and patents	1,300	(786)	514	8.0 years
Non-compete agreements	500	(182)	318	5.0 years
	\$ 9,000	\$ (7,859)	\$ 1,141	

In the six months ended December 31, 2010, the Company purchased two IP licenses for \$2,746. These licenses were recorded as intangible assets and are being amortized over one and five years.

Estimated future amortization expense for acquired intangible assets remaining at December 31, 2010 is \$603 for fiscal 2011, \$830 for fiscal 2012, \$706 for fiscal 2013, \$512 for fiscal 2014, and \$599 for fiscal 2015 and thereafter.

I. Debt

Debt consisted of the following:

	December 31, 2010	June 30, 2010
Capital lease obligations	\$ 306	\$ 142
Less: current portion	(185)	(53)
Total non-current capital lease obligations	\$ 121	\$ 89

The current portion of capital lease obligations is included in accrued expenses and the non-current portion is included in other non-current liabilities on the consolidated balance sheets at December 31, 2010 and June 30, 2010.

Borrowings Under UBS Line of Credit

As of June 30, 2010, there were no borrowings against the UBS line of credit. The UBS line of credit terminated on July 1, 2010 upon the settlement of the put option for our ARS.

Senior Secured Credit Facility

On February 12, 2010, the Company entered into a loan and security agreement (the "Loan Agreement") with Silicon Valley Bank (the "Lender"). The Loan Agreement provides for a \$15,000 revolving line of credit (the "Revolver") and a \$20,000 acquisition line (the "Term Loan"). The Revolver is available for borrowing during a two-year period, with interest payable monthly and the principal due at the February 11, 2012 maturity of the Revolver. The Term Loan is available for up to three separate borrowings, with total borrowings not to exceed \$20,000, until February 11, 2012. The Term Loan has monthly interest and principal payments through the February 11, 2014 maturity of the Term Loan. The Term Loan was not used for the January 12, 2011 acquisition of LNX Corporation (see Note P).

Table of Contents

The Loan Agreement bears interest, at the Company's option, at a rate per annum equal to either: (i) the prime rate minus 0.25% to plus 0.25%; or (ii) the LIBOR rate plus 2.75% to 3.25%. The rates are based on the Company's consolidated leverage ratio at the time of borrowing. For prime rate borrowings, the prime rate shall be the greater of: (i) 4.00%; or (ii) the Lender's prime rate. The Company may not have LIBOR credit extensions having more than four different interest periods outstanding at any point in time. The Company is required to pay a fee on the daily unused portion of the Loan Agreement of 0.30% per annum. Borrowings under the Revolver are available for letters of credit, cash management services, working capital, general business purposes and foreign exchange. Borrowings under the Term Loan are available to fund acquisitions.

Borrowings under the Loan Agreement are secured by a first-priority security interest in all of the Company's domestic assets, including intellectual property, but limited to 65% of the voting stock of foreign subsidiaries. The Company's MFS subsidiary is a guarantor and has granted a security interest in its assets in favor of the Lender. The Lender may require Mercury Computer Systems Limited, the Company's United Kingdom subsidiary, or Nihon Mercury Computer Systems, K.K., the Company's Japanese subsidiary, to provide guarantees in the future if the cash or assets of such subsidiary exceed specified levels.

The Loan Agreement provides for conventional affirmative and negative covenants, including a minimum quick ratio of 1.5 to 1.0. If the Company has less than \$10,000 of cash equivalents in accounts with the Lender in excess of the Company's borrowings under the Loan Agreement, the Company must also satisfy a \$15,000 minimum trailing-four-quarter cash-flow covenant. The minimum cash flow covenant is calculated as the Company's trailing-four quarter adjusted EBITDA as defined in the Loan Agreement. In addition, the Loan Agreement contains certain customary representations and warranties and limits the Company's and its subsidiaries' ability to incur liens, dispose of assets, carry out certain mergers and acquisitions, make investments and capital expenditures and defines events of default and limitations on the Company and its subsidiaries to incur additional debt.

The Company has had no borrowings against its Term Loan and Revolver since inception and was in compliance with all covenants in the Loan Agreement as of December 31, 2010.

J. Stock-Based Compensation

Stock Option Plans

The number of shares authorized for issuance under the Company's 2005 Stock Incentive Plan, as amended and restated (the "2005 Plan"), is 5,092 shares, which will be increased by any future cancellations, forfeitures or terminations (other than by exercise) under the Company's 1997 Stock Option Plan (the "1997 Plan"). On October 21, 2010, the Company's shareholders approved an increase in the number of shares authorized for issuance under the 2005 plan to 5,092, an increase of 1,000. 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 generally have a term of seven years. There were 2,631 shares available for future grant under the 2005 Plan at December 31, 2010.

The number of shares authorized for issuance under the 1997 Plan was 8,650 shares, of which 100 shares could be issued pursuant to restricted stock grants. The 1997 Plan provided for the grant of non-qualified and incentive stock options and restricted stock to employees and non-employees. All stock options were 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 typically vest over periods of zero to four 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, and the 1997 Plan subsequently expired in June 2007. The foregoing does not affect any outstanding awards under the 1997 Plan, which remain in full force and effect in accordance with their terms.

Table of Contents

Employee Stock Purchase Plan

The number of shares authorized for issuance under the Company's 1997 Employee Stock Purchase Plan, as amended and restated ("ESPP"), is 1,100 shares. Under the ESPP, 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 ESPP permits employees to purchase common stock through payroll deductions, which may not exceed 10% of an employee's compensation as defined in the ESPP. There were 54 and 50 shares issued under the ESPP during the six months ended December 31, 2010 and 2009, respectively. Shares available for future purchase under the ESPP totaled 199 at December 31, 2010.

Stock Option and Award Activity

The following table summarizes activity of the Company's stock option plans since June 30, 2009:

		Options Outstanding	
	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)
Outstanding at June 30, 2009	2,980	\$ 13.87	5.69
Granted	56	10.41	
Exercised	(130)	7.72	
Cancelled	(294)	17.38	
Outstanding at June 30, 2010	2,612	\$ 13.70	4.69
Granted	77	13.70	
Exercised	(130)	8.43	
Cancelled	(70)	17.86	
Outstanding at December 31, 2010	2,489	\$ 13.86	4.39

The following table summarizes the status of the Company's non-vested restricted stock awards since June 30, 2009:

	Non-vested Restricted Stock Awards	
	Number of Shares	Weighted Average Grant Date Fair Value
Outstanding at June 30, 2009	666	\$ 8.97

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Granted	609	10.21
Vested	(325)	10.39
Forfeited	(122)	8.22
Outstanding at June 30, 2010	828	\$ 9.44
Granted	624	11.41
Vested	(165)	11.05
Forfeited	(28)	9.68
Outstanding at December 31, 2010	1,259	\$ 10.20

F-49

Table of Contents

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 and six months ended December 31, 2010 and 2009 in accordance with FASB ASC 718, *Compensation - Stock Compensation* (FASB ASC 718), 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 FASB ASC 718, 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 December 31,		Six Months Ended December 31,	
	2010	2009	2010	2009
Cost of revenues	\$ 64	\$ 73	\$ 107	\$ 110
Selling, general and administrative	1,414	1,318	2,554	1,718
Research and development	155	145	262	197
Share-based compensation expense	\$ 1,633	\$ 1,536	\$ 2,923	\$ 2,025

The following table sets forth the weighted-average key assumptions and fair value results for stock options granted during the three and six month periods ended December 31, 2010 and 2009:

	Three Months Ended December 31,		Six Months Ended December 31,	
	2010	2009	2010	2009
Weighted-average fair value of options granted	\$ 7.33	\$ 7.17	\$ 7.25	\$ 7.17
Option life ⁽¹⁾	5 years	5 years	5 years	5 years
Risk-free interest rate ⁽²⁾	1.2%	2.4%	1.3%	2.4%
Stock volatility ⁽³⁾	61%	87%	63%	87%
Dividend rate	0%	0%	0%	0%

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

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

- (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.
- (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.

F-50

Table of Contents

The following table sets forth the weighted-average key assumptions and fair value results for employees' stock purchase rights during the three and six month periods ended December 31, 2010 and 2009:

	Three Months Ended December 31,		Six Months Ended December 31,	
	2010	2009	2010	2009
Weighted-average fair value of stock purchase rights granted	\$ 3.59	\$ 3.98	\$ 3.59	\$ 3.98
Option life	6 months	6 months	6 months	6 months
Risk-free interest rate	0.2%	0.3%	0.2%	0.3%
Stock volatility	57%	96%	57%	96%
Dividend rate	0%	0%	0%	0%

Stock Net Settlement Program

During fiscal 2010, the Company discontinued the net share settlement practice for settling vested restricted stock awards. Prior to this discontinuation, the Company could net settle shares in connection with the surrender of shares to cover the minimum taxes on vesting of restricted stock. During fiscal 2010, 42 shares were net settled in such transactions for a total cost of \$433.

K. Income Tax Expense

The Company recorded tax expense of \$1,696 and \$330 for the three months ended December 31, 2010 and 2009, respectively, on income from continuing operations before taxes of \$6,879 and \$2,245 for the three months ended December 31, 2010 and 2009, respectively. The Company recorded tax expense of \$3,773 and \$1,236 for the six months ended December 31, 2010 and 2009, respectively, on income from continuing operations before taxes of \$12,638 and \$7,576 for the six months ended December 31, 2010 and 2009, respectively. Income tax expense for the three and six months ended December 31, 2010 differed from the federal statutory rate primarily due to the impact of research and development tax credits and the impact of a Section 199 Manufacturing Deduction. Income tax expense for the three and six months ended December 31, 2009 differed from the federal statutory rate primarily due to research and development tax credits and a decrease in the valuation allowance on deferred tax assets.

No material changes in the Company's unrecognized tax positions occurred during the three and six months ended December 31, 2010. The Company does not expect there to be any material changes in its reserves for unrecognized tax benefits within the next 12 months.

L. Restructuring Expense

In July 2009, the Company announced a restructuring plan within the ACS business unit (the "Q1 FY10 Plan"). This plan was enacted following the completion of the Company's divestitures as part of the Company's reorganization of part of its business operations. There were no expenses recorded during three and six months ended December 31, 2010 against the plan. The Company had a reversal of \$19 for unused outplacement costs in the three months ended December 31, 2009 and recorded expense of \$254 in the six months ended December 31, 2009 against this plan. At December 31, 2010, the Company has no restructuring liability in the consolidated balance sheet.

M. Operating Segment, Geographic Information and Significant Customers

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. The Company is organized in two business segments. 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:

- n Advanced Computing Solutions (ACS). This business unit is focused on specialized, high performance computing solutions with key market segments, including defense, semiconductor, and

F-51

Table of Contents

commercial computing. This segment also provides software and customized design services to meet the specified requirements of military and commercial applications.

- ⁿ Mercury Federal Systems (MFS). This business unit is focused on services and support work with the Department of Defense and federal intelligence and homeland security agencies, including designing and engineering new ISR capabilities to address present and emerging threats to U.S. forces.

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 (CODM) for making decisions about allocating resources to segments and assessing segment performance was income (loss) from operations prior to stock compensation expense. As such, stock-based 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 reported in the consolidated statements of operations. Additionally, asset information by reportable segment is not reported because the Company and its CODM utilize consolidated asset information when making business decisions. The following is a summary of the performance of the Company's operations by reportable segment:

	ACS	MFS	Stock Compensation Expense	Eliminations	Total
THREE MONTHS ENDED					
DECEMBER 31, 2010					
Net revenues to unaffiliated customers	\$ 51,893	\$ 3,565	\$	\$ 55	\$ 55,513
Intersegment revenues	1,363			(1,363)	
Net revenues	\$ 53,256	\$ 3,565	\$	\$ (1,308)	\$ 55,513
Income (loss) from operations	\$ 7,595	\$ 66	\$ (1,633)	\$ 490	\$ 6,518
Depreciation and amortization expense	\$ 1,860	\$ 9	\$	\$	\$ 1,869
THREE MONTHS ENDED					
DECEMBER 31, 2009					
Net revenues to unaffiliated customers	\$ 42,081	\$ 3,077	\$	\$	\$ 45,158
Intersegment revenues	1,699	266		(1,965)	
Net revenues	\$ 43,780	\$ 3,343	\$	\$ (1,965)	\$ 45,158
Income (loss) from operations	\$ 3,088	\$ 362	\$ (1,536)	\$	\$ 1,914
Depreciation and amortization expense	\$ 1,651	\$ 7	\$	\$	\$ 1,658
SIX MONTHS ENDED					
DECEMBER 31, 2010					
Net revenues to unaffiliated customers	\$ 102,369	\$ 5,419	\$	\$ (167)	\$ 107,621
Intersegment revenues	2,771			(2,771)	
Net revenues	\$ 105,140	\$ 5,419	\$	\$ (2,938)	\$ 107,621
Income (loss) from operations	\$ 15,460	\$ (431)	\$ (2,923)	\$ (343)	\$ 11,763

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Depreciation and amortization expense	\$ 3,598	\$ 18	\$	\$	\$ 3,616
SIX MONTHS ENDED					
DECEMBER 31, 2009					
Net revenues to unaffiliated customers	\$ 86,440	\$ 6,149	\$	\$	\$ 92,589
Intersegment revenues	2,593	336		(2,929)	
Net revenues	\$ 89,033	\$ 6,485	\$	\$ (2,929)	\$ 92,589
Income (loss) from operations	\$ 8,694	\$ 300	\$ (2,025)	\$	\$ 6,969
Depreciation and amortization expense	\$ 3,332	\$ 14	\$	\$	\$ 3,346

F-52

Table of Contents

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

	U.S.	Europe	Asia Pacific	Eliminations	Total
THREE MONTHS ENDED					
DECEMBER 31, 2010					
Net revenues to unaffiliated customers	\$ 50,642	\$ 1,308	\$ 3,563	\$	\$ 55,513
Inter-geographic revenues	2,420	518	27	(2,965)	
Net revenues	\$ 53,062	\$ 1,826	\$ 3,590	\$ (2,965)	\$ 55,513
THREE MONTHS ENDED					
DECEMBER 31, 2009					
Net revenues to unaffiliated customers	\$ 38,450	\$ 2,598	\$ 4,110	\$	\$ 45,158
Inter-geographic revenues	4,192	50	74	(4,316)	
Net revenues	\$ 42,642	\$ 2,648	\$ 4,184	\$ (4,316)	\$ 45,158
SIX MONTHS ENDED					
DECEMBER 31, 2010					
Net revenues to unaffiliated customers	\$ 101,305	\$ 2,362	\$ 3,954	\$	\$ 107,621
Inter-geographic revenues	3,876	1,162	120	(5,158)	
Net revenues	\$ 105,181	\$ 3,524	\$ 4,074	\$ (5,158)	\$ 107,621
SIX MONTHS ENDED					
DECEMBER 31, 2009					
Net revenues to unaffiliated customers	\$ 82,988	\$ 4,351	\$ 5,250	\$	\$ 92,589
Inter-geographic revenues	6,055	120	135	(6,310)	
Net revenues	\$ 89,043	\$ 4,471	\$ 5,385	\$ (6,310)	\$ 92,589

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:

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

	U.S.	Europe	Asia Pacific	Eliminations	Total
December 31, 2010	\$ 14,947	\$ 21	\$ 655	\$	\$ 15,623
June 30, 2010	\$ 13,384	\$ 21	\$ 716	\$	\$ 14,121

Identifiable long-lived assets exclude goodwill, intangible assets, deferred tax accounts, and investments in other entities.

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

	Three Months Ended December 31,		Six Months Ended December 31,	
	2010	2009	2010	2009
Raytheon Company	23%	30%	20%	24%
Lockheed Martin Corporation	15%	*	14%	10%
Northrop Grumman Corporation	14%	*	18%	13%
	52%	30%	52%	47%

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

Although the Company typically has several customers from which it derives 10% or more of its revenue, the sales to each of these customers are spread across multiple programs and platforms. For the three and six months ended December 31, 2010, only one program individually comprised 10% or more of the Company's revenues, which was the Aegis program at 12% for both periods. For the three and six months ended December 31, 2009, no single program comprised 10% or more of the Company's revenues.

Table of Contents

N. Commitments and Contingencies

Legal Claims

The Company is subject to 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.

In connection with the divestitures of the Company's former VI, VSG, Biotech and ES/PS businesses, the Company provided indemnification to the buyers of the respective businesses. The Company's indemnification obligations generally cover the buyers for damages resulting from breaches of representations, warranties and covenants contained in the applicable purchase and sale agreement and generally cover pre-closing tax liabilities of the divested businesses. In addition, the Company also agreed to indemnify the buyer of the VI business for certain post-closing employee severance expenses. The Company's indemnification obligations related to divested businesses are generally subject to caps and expire at various defined future dates.

Purchase Commitments

In September 2006, the Company entered into a supply agreement with a third-party vendor to purchase certain inventory parts that went on indefinitely. This supply agreement, as subsequently amended, commits the vendor to acquiring and storing approximately \$6,500 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 \$1,900 of the \$6,500. Further, upon expiration of the agreement on August 31, 2012, if the Company does not purchase the full \$6,500 in inventory, it may be required to pay a penalty equal to 35% of the remaining inventory balance. As of December 31, 2010, the remaining minimum commitment related to this agreement was \$1,665, which is the 35% penalty on the remaining inventory balance. While the Company expects to continue to purchase this inventory through the expiration of the agreement, it does not expect to purchase the full \$6,500 noted above. As of December 31, 2010, the Company has recorded an accrued liability of approximately \$500 for the 35% penalty it anticipates on paying for unpurchased inventory.

The Company's purchase obligations typically represent open non-cancelable purchase commitments for certain inventory components and services used in normal operations. At December 31, 2010, the purchase commitments covered by these agreements were for less than one year and aggregated approximately \$12,562.

O. Related Party Transactions

In July 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. Additionally, in July 2008, the Company entered into a five year non-compete agreement with its former CEO. This agreement, which is carried as an intangible asset on the Company's balance sheet, was valued at \$500 and is being amortized over the life of the agreement. As of December 31, 2010, the Company had made payments of \$500 under this non-compete agreement.

Table of Contents

P. Subsequent Events

The Company has evaluated subsequent events from the date of the consolidated balance sheet through the date the consolidated financial statements were issued.

On January 12, 2011, the Company entered into a stock purchase agreement (the "Stock Purchase Agreement") with LNX Corporation ("LNX"), the holders of the equity interests of LNX, and Lamberto Raffaelli, as the sellers' representative. Pursuant to the Stock Purchase Agreement, the Company completed its purchase of all of the outstanding equity interests in LNX, and LNX became a wholly-owned subsidiary of the Company. Based in Salem, NH, LNX designs and builds next generation radio frequency receivers for signal intelligence, communication intelligence as well as electronic attack applications.

The Company acquired LNX for a purchase price of \$31,000 paid in cash, plus an earnout of up to \$5,000 payable in cash, based upon achievement of financial targets during calendar years 2011 and 2012. The purchase price is subject to post-closing adjustment based on a determination of LNX's closing net working capital. In accordance with the Stock Purchase Agreement, \$6,200 of the purchase price was placed into escrow to support the post-closing working capital adjustment and the sellers' indemnification obligations. The Company funded the purchase price with cash on hand. The Company acquired LNX free of bank debt. Immediately prior to the consummation of the acquisition, LNX divested its non-defense global procurement business.

The Company also signed a two year consulting agreement with Lamberto Raffaelli, LNX's founder.

Following the acquisition, the Company's LNX subsidiary became a guarantor under the Company's Loan Agreement and granted a security interest in its assets in favor of the Lender.

Table of Contents

Prospectus

MERCURY COMPUTER SYSTEMS, INC.

\$100,000,000

Debt Securities

Preferred Stock

Common Stock

Warrants

Units

This prospectus provides you with a general description of debt and equity securities that Mercury Computer Systems, Inc. may offer and sell, from time to time, either individually or in units. Each time we sell securities we will provide a prospectus supplement that will contain specific information about the terms of any debt or equity securities we offer and the specific manner in which we will offer the debt or equity securities. The prospectus supplement will also contain information, where appropriate, about material United States federal income tax consequences relating to, and any listing on a securities exchange of, the debt or equity securities covered by the prospectus supplement. The prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus and the applicable prospectus supplement carefully before you invest in our securities.

Our common stock is listed on the NASDAQ Global Select Market under the symbol MRCY.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading Risk Factors contained in this prospectus and the applicable prospectus supplement, and under similar headings in the other documents that are incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is April 28, 2009

Table of Contents

Table of Contents

	Page
<u>ABOUT THIS PROSPECTUS</u>	1
<u>ABOUT MERCURY COMPUTER SYSTEMS, INC.</u>	1
<u>RISK FACTORS</u>	2
<u>CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS</u>	2
<u>RATIOS OF EARNINGS TO FIXED CHARGES</u>	4
<u>HOW WE INTEND TO USE THE PROCEEDS</u>	5
<u>DESCRIPTION OF THE SECURITIES</u>	6
<u>DESCRIPTION OF DEBT SECURITIES</u>	7
<u>DESCRIPTION OF PREFERRED STOCK</u>	21
<u>DESCRIPTION OF COMMON STOCK</u>	27
<u>DESCRIPTION OF WARRANTS</u>	29
<u>DESCRIPTION OF UNITS</u>	30
<u>HOW WE PLAN TO SELL THE SECURITIES</u>	33
<u>INFORMATION INCORPORATED BY REFERENCE</u>	36
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	37
<u>EXPERTS</u>	37
<u>LEGAL MATTERS</u>	37

Table of Contents

Unless the context otherwise requires, all references to Mercury, we, our, us or our company in this prospectus refer to Mercury Computer Systems, Inc., a Massachusetts corporation.

About this Prospectus

This prospectus is part of a registration statement filed with the Securities and Exchange Commission, or SEC, utilizing a shelf registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus, either individually or in units, in one or more offerings, up to a total dollar amount of \$100,000,000.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that specific offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus and the applicable prospectus supplement together with the additional information described under the heading **Where You Can Find More Information**.

About Mercury Computer Systems, Inc.

Mercury was incorporated in Massachusetts in 1981. We design, manufacture and market high-performance computer, signal and image processing systems and software for embedded and other specialized computing markets. In doing so, 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 largest business unit is our Advanced Computing Solutions, or ACS, business unit, which is focused on specialized high performance computing solutions with key market segments including: aerospace and defense which includes systems for radar, electronic warfare, sonar, C4I (Command, Control, Communications, Computers, and Intelligence) and electro-optical; and semiconductor which includes systems for semiconductor wafer inspection, reticle inspection and mask writing. Our other businesses include Mercury Federal Systems, which is part of our long-term strategy to expand our software and services presence and pursue growth in markets adjacent to defense computing. Mercury is based in Chelmsford, Massachusetts, and serves customers worldwide through a broad network of direct sales offices, subsidiaries, and distributors.

Our common stock is listed on the NASDAQ Global Select Market under the symbol **MRCY**. Our executive offices are located at 201 Riverneck Road, Chelmsford, Massachusetts 01824 and our telephone number is (978) 256-1300.

Table of Contents

Risk Factors

Investing in our securities involves a high degree of risk. Please see the risk factors under the heading "Risk Factors" in our Annual Report on Form 10-K for the year ended June 30, 2008, and in our Quarterly Report on Form 10-Q for the quarter ended December 31, 2008, each on file with the SEC, which are incorporated by reference into this prospectus. Before you invest in our securities, you should carefully consider these risks as well as other information we include or incorporate by reference into this prospectus and the applicable prospectus supplement. The risks and uncertainties we have described are not the only ones facing our company. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business operations. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities. The discussion of risks includes or refers to forward-looking statements; you should read the explanation of the qualifications and limitations on such forward-looking statements discussed elsewhere in this prospectus.

Cautionary Statement Regarding Forward-Looking Statements

This prospectus, including the information incorporated by reference into this prospectus, contains, and any prospectus supplement may contain, statements that are forward-looking statements within the meaning of the federal securities laws. We caution you that any forward-looking statements presented in this prospectus, or which management may make orally or in writing from time to time, are based on management's beliefs and assumptions made by, and information currently available to, management. When we use the words "believe," "expect," "anticipate," "plan," "intend," "estimate," "project," "may," "will," "should," "continue," "assume" and other similar expressions, they are generally forward-looking statements. These statements include, among other things, statements regarding our intent, belief or expectations with respect to:

- n our strategic plans;

- n our business outlook; and

- n our future business and financial performance.

You should not rely on forward-looking statements because they involve known and unknown risks, uncertainties and other factors which are, in some cases, beyond our control and may cause our actual results, performance or achievements to differ materially from anticipated future results, or the performance or achievements expressed or implied by such forward-looking statements. Factors that might cause such a difference include, but are not limited to:

- n general economic and business conditions, including unforeseen economic weakness in our markets;

- n effects of continued geo-political unrest and regional conflicts;

- n competition;

- n changes in technology and methods of marketing;

- n delays in completing various engineering and manufacturing programs;

- n changes in customer order patterns;

- n changes in product mix;
- n continued success in technological advances and delivering technological innovations;
- n continued funding of defense programs and the timing of such funding;
- n changes in the United States government's interpretation of federal procurement rules and regulations;
- n market acceptance of our products;
- n shortages in components;

Table of Contents

- n production delays due to performance quality issues with outsourced components;
 - n inability to fully realize the expected benefits from acquisitions or delays in realizing such benefits;
 - n challenges in integrating acquired businesses and achieving anticipated synergies;
 - n inability to identify opportunities to rationalize our business portfolio in a timely manner or at all;
 - n difficulties in retaining key employees and customers; and
 - n various other factors beyond our control.
- You should carefully review all of these factors, and you should be aware that there may be other factors that could cause such differences.

We caution you that, while forward-looking statements reflect our estimates and beliefs, they are not guarantees of future performance. We do not promise to update any forward-looking statements to reflect changes in underlying assumptions or factors, new information, future events or other changes.

Table of Contents**Ratios of Earnings to Fixed Charges**

The following table sets forth the ratio of earnings to fixed charges for the periods indicated below (in thousands). We have no preferred shares outstanding and paid no dividends on preferred shares during the periods indicated. Therefore, the ratios of earnings to combined fixed charges and preferred dividends are the same as the ratios of earnings to fixed charges presented below.

	Years Ended June 30,					Six Months Ended December 31, 2008
	2004	2005	2006	2007	2008	
Coverage deficiency			(18,360)	(37,182)	(32,975)	(18,112)
Ratio of earnings to fixed charges	18.8	10.1	(2.8)	(6.1)	(5.8)	(6.4)

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. Earnings were insufficient to cover fixed charges in fiscal 2006, 2007 and 2008, and the six months ended December 31, 2008.

Subsequent to the ratio of earnings to fixed charges as of December 31, 2008 set forth above, we undertook the following two actions, which have the impact of increasing our ratio of earnings to fixed charges by decreasing interest expense. On February 4, 2009, we repurchased \$119,688,000 aggregate principal amount of our 2.00% Convertible Senior Notes due 2024 from the holder of such Notes. In addition, on March 31, 2009, we announced the repurchase of the remaining outstanding aggregate principal amount of such Notes (\$5,312,000) effective May 1, 2009.

Table of Contents

How We Intend to Use the Proceeds

We currently intend to use the net proceeds from the sale of any securities under this prospectus for general corporate purposes, which may include the following:

n the acquisition of other companies or businesses;

n the repayment and refinancing of debt;

n capital expenditures;

n working capital; and

n other purposes as mentioned in any prospectus supplement.

Pending such uses, we may temporarily invest the net proceeds. The precise amounts and timing of the application of proceeds will depend upon our funding requirements and the availability of other funds. Except as mentioned in any prospectus supplement, specific allocations of the proceeds to such purposes will not have been made at the date of that prospectus supplement.

Based upon our historical and anticipated future growth and our financial needs, we may engage in additional financings of a character and amount that we determine as the need arises.

Table of Contents

Description of the Securities

We may offer, from time to time, in one or more offerings, up to \$100,000,000 of the following securities:

n senior debt securities;

n subordinated debt securities;

n preferred stock;

n common stock;

n warrants;

n units; or

n any combination of the foregoing securities.

The aggregate initial offering price of the offered securities that we may issue will not exceed \$100,000,000. If we issue debt securities at a discount from their principal amount, then, for purposes of calculating the aggregate initial offering price of the offered securities issued under this prospectus, we will include only the initial offering price of the debt securities and not the principal amount of the debt securities.

This prospectus contains a summary of the general terms of the various securities that we may offer. The prospectus supplement relating to any particular securities offered will describe the specific terms of the securities, which may be in addition to or different from the general terms summarized in this prospectus. Because the summary in this prospectus and in any prospectus supplement does not contain all of the information that you may find useful, you should read the documents relating to the securities that are described in this prospectus or in any applicable prospectus supplement. Please read **Where You Can Find More Information** to find out how you can obtain a copy of those documents.

The applicable prospectus supplement will also contain the terms of a given offering, the initial offering price and our net proceeds. Where applicable, a prospectus supplement will also describe any material United States federal income tax consequences relating to the securities offered and indicate whether the securities offered are or will be quoted or listed on any quotation system or securities exchange.

Table of Contents

Description of Debt Securities

This prospectus describes the general terms and provisions of the debt securities we may issue. When we offer to sell a particular series of debt securities, we will describe the specific terms of the securities in a supplement to this prospectus, including any additional covenants or changes to existing covenants relating to such series. The prospectus supplement also will indicate whether the general terms and provisions described in this prospectus apply to a particular series of debt securities. You should read the actual indenture if you do not fully understand a term or the way we use it in this prospectus.

We may offer senior or subordinated debt securities. Each series of debt securities may have different terms. The senior debt securities will be issued under one or more senior indentures, dated as of a date prior to such issuance, between us and U.S. Bank National Association, as trustee, as amended or supplemented from time to time. We will refer to any such indenture throughout this prospectus as the *senior indenture*. Any subordinated debt securities will be issued under one or more separate indentures, dated as of a date prior to such issuance, between us and U.S. Bank National Association, as trustee, as amended or supplemented from time to time. We will refer to any such indenture throughout this prospectus as the *subordinated indenture* and to the trustee under the senior or subordinated indenture as the *trustee*. The senior indenture and the subordinated indenture are sometimes collectively referred to in this prospectus as the *indentures*. The indentures will be subject to and governed by the Trust Indenture Act of 1939, as amended. We included copies of the forms of the indentures as exhibits to our registration statement and they are incorporated into this prospectus by reference.

If we issue debt securities at a discount from their principal amount, then, for purposes of calculating the aggregate initial offering price of the offered securities issued under this prospectus, we will include only the initial offering price of the debt securities and not the principal amount of the debt securities.

We have summarized below the material provisions of the indentures and the debt securities, or indicated which material provisions will be described in the related prospectus supplement. The prospectus supplement relating to any particular securities offered will describe the specific terms of the securities, which may be in addition to or different from the general terms summarized in this prospectus. Because the summary in this prospectus and in any prospectus supplement does not contain all of the information that you may find useful, you should read the documents relating to the securities that are described in this prospectus or in any applicable prospectus supplement. Please read *Where You Can Find More Information* to find out how you can obtain a copy of those documents. Except as otherwise indicated, the terms of the indentures are identical. As used under this caption, the term *debt securities* includes the debt securities being offered by this prospectus and all other debt securities issued by us under the indentures.

General

The indentures:

- n do not limit the amount of debt securities that we may issue;
- n allow us to issue debt securities in one or more series;
- n do not require us to issue all of the debt securities of a series at the same time;
- n allow us to reopen a series to issue additional debt securities without the consent of the holders of the debt securities of such series; and
- n provide that the debt securities will be unsecured, except as may be set forth in the applicable prospectus supplement.

Unless we give you different information in the applicable prospectus supplement, the senior debt securities will be unsubordinated obligations and will rank equally with all of our other unsecured and unsubordinated indebtedness. Payments on the subordinated debt securities will be subordinated to the prior payment in full of all of our senior indebtedness, as described under *Description of the Debt Securities Subordination* and in the applicable prospectus supplement.

Table of Contents

Each indenture provides that we may, but need not, designate more than one trustee under an indenture. Any trustee under an indenture may resign or be removed and a successor trustee may be appointed to act with respect to the series of debt securities administered by the resigning or removed trustee. If two or more persons are acting as trustee with respect to different series of debt securities, each trustee shall be a trustee of a trust under the applicable indenture separate and apart from the trust administered by any other trustee. Except as otherwise indicated in this prospectus, any action described in this prospectus to be taken by each trustee may be taken by each trustee with respect to, and only with respect to, the one or more series of debt securities for which it is trustee under the applicable indenture.

The prospectus supplement for each offering will provide the following terms, where applicable:

- n the title of the debt securities and whether they are senior or subordinated;
- n the aggregate principal amount of the debt securities being offered, the aggregate principal amount of the debt securities outstanding as of the most recent practicable date and any limit on their aggregate principal amount, including the aggregate principal amount of debt securities authorized;
- n the price at which the debt securities will be issued, expressed as a percentage of the principal and, if other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof or, if applicable, the portion of the principal amount of such debt securities that is convertible into common stock or preferred stock or the method by which any such portion shall be determined;
- n if convertible, the terms on which such debt securities are convertible, including the initial conversion price or rate and the conversion period and any applicable limitations on the ownership or transferability of common stock or preferred stock received on conversion;
- n the date or dates, or the method for determining the date or dates, on which the principal of the debt securities will be payable;
- n the fixed or variable interest rate or rates of the debt securities, or the method by which the interest rate or rates is determined;
- n the date or dates, or the method for determining the date or dates, from which interest will accrue;
- n the dates on which interest will be payable;
- n the record dates for interest payment dates, or the method by which we will determine those dates;
- n the persons to whom interest will be payable;
- n the basis upon which interest will be calculated if other than that of a 360-day year of twelve 30-day months;
- n any make-whole amount, which is the amount in addition to principal and interest that is required to be paid to the holder of a debt security as a result of any optional redemption or accelerated payment of such debt security, or the method for determining the make-whole amount;

- n the place or places where the principal of, and any premium, or make-whole amount, and interest on, the debt securities will be payable;
- n where the debt securities may be surrendered for registration of transfer or conversion or exchange;
- n where notices or demands to or upon us in respect of the debt securities and the applicable indenture may be served;
- n the times, prices and other terms and conditions upon which we may redeem the debt securities;
- n any obligation we have to redeem, repay or purchase the debt securities pursuant to any sinking fund or analogous provision or at the option of holders of the debt securities, and the times and prices at which we must redeem, repay or purchase the debt securities as a result of such an obligation;
- n the currency or currencies in which the debt securities are denominated and payable if other than United States dollars, which may be a foreign currency or units of two or more foreign currencies or a composite currency or

Table of Contents

currencies and the terms and conditions relating thereto, and the manner of determining the equivalent of such foreign currency in United States dollars;

- n whether the principal of, and any premium, or make-whole amount, or interest on, the debt securities of the series are to be payable, at our election or at the election of a holder, in a currency or currencies other than that in which the debt securities are denominated or stated to be payable, and other related terms and conditions;
- n whether the amount of payments of principal of, and any premium, or make-whole amount, or interest on, the debt securities may be determined according to an index, formula or other method and how such amounts will be determined;
- n whether the debt securities will be in registered form, bearer form or both and (1) if in registered form, the person to whom any interest shall be payable, if other than the person in whose name the security is registered at the close of business on the regular record date for such interest, or (2) if in bearer form, the manner in which, or the person to whom, any interest on the security shall be payable if otherwise than upon presentation and surrender upon maturity;
- n any restrictions applicable to the offer, sale or delivery of securities in bearer form and the terms upon which securities in bearer form of the series may be exchanged for securities in registered form of the series and vice versa if permitted by applicable laws and regulations;
- n whether any debt securities of the series are to be issuable initially in temporary global form and whether any debt securities of the series are to be issuable in permanent global form with or without coupons and, if so, whether beneficial owners of interests in any such permanent global security may or shall be required to exchange their interests for other debt securities of the series, and the manner in which interest shall be paid;
- n the identity of the depositary for securities in registered form, if such series are to be issuable as a global security;
- n the date as of which any debt securities in bearer form or in temporary global form shall be dated if other than the original issuance date of the first security of the series to be issued;
- n the applicability, if any, of the defeasance and covenant defeasance provisions described in this prospectus or in the applicable indenture;
- n whether and under what circumstances we will pay any additional amounts on the debt securities in respect of any tax, assessment or governmental charge and, if so, whether we will have the option to redeem the debt securities in lieu of making such a payment;
- n whether and under what circumstances the debt securities being offered are convertible into common stock or preferred stock, as the case may be, including the conversion price or rate or manner or calculation thereof;
- n the circumstances, if any, specified in the applicable prospectus supplement, under which beneficial owners of interests in the global security may obtain definitive debt securities and the manner in which payments on a permanent global debt security will be made if any debt securities are issuable in temporary or permanent global form;

n

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

any provisions granting special rights to holders of securities upon the occurrence of such events as specified in the applicable prospectus supplement;

- n if the debt securities of such series are to be issuable in definitive form only upon receipt of certain certificates or other documents or satisfaction of other conditions, then the form and/or terms of such certificates, documents or conditions;
- n the name of the applicable trustee and the nature of any material relationship with us or any of our affiliates, and the percentage of debt securities of the class necessary to require the trustee to take action;

Table of Contents

n any deletions from, modifications of, or additions to our events of default or covenants and any change in the right of any trustee or any of the holders to declare the principal amount of any of such debt securities due and payable;

n applicable CUSIP numbers; and

n any other terms of such debt securities not inconsistent with the provisions of the applicable indenture.

We may issue debt securities at a discount below their principal amount and provide for less than the entire principal amount thereof to be payable upon declaration of acceleration of the maturity of the debt securities. We refer to any such debt securities throughout this prospectus as original issue discount securities. The applicable prospectus supplement will describe the United States federal income tax consequences and other relevant considerations applicable to original issue discount securities.

We also may issue indexed debt securities. Payments of principal of and premium and interest on, indexed debt securities are determined with reference to the rate of exchange between the currency or currency unit in which the debt security is denominated and any other currency or currency unit specified by us, to the relationship between two or more currencies or currency units or by other similar methods or formulas specified in the prospectus supplement.

Except as described under Merger, Consolidation or Sale of Assets or as may be set forth in any prospectus supplement, the debt securities will not contain any provisions that (1) would limit our ability to incur indebtedness or (2) would afford holders of debt securities protection in the event of (a) a highly leveraged or similar transaction involving us, or (b) a change of control or reorganization, restructuring, merger or similar transaction involving us that may adversely affect the holders of the debt securities. In the future, we may enter into transactions, such as the sale of all or substantially all of our assets or a merger or consolidation, that may have an adverse effect on our ability to service our indebtedness, including the debt securities, by, among other things, substantially reducing or eliminating our assets.

Neither the Massachusetts General Laws nor our governing instruments define the term substantially all as it relates to the sale of assets. Additionally, Massachusetts cases interpreting the term substantially all rely upon the facts and circumstances of each particular case. Consequently, to determine whether a sale of substantially all of our assets has occurred, a holder of debt securities must review the financial and other information that we have disclosed to the public.

We will provide you with more information in the applicable prospectus supplement regarding any deletions, modifications, or additions to the events of default or covenants that are described below, including any addition of a covenant or other provision providing event risk or similar protection.

Payment

Unless we give you different information in the applicable prospectus supplement, the principal of, and any premium, or make-whole amount, and interest on, any series of the debt securities will be payable at the corporate trust office of the trustee. We will provide you with the address of the trustee in the applicable prospectus supplement. We may also pay interest by mailing a check to the address of the person entitled to it as it appears in the applicable register for the debt securities or by wire transfer of funds to that person at an account maintained within the United States.

All monies that we pay to a paying agent or a trustee for the payment of the principal of, and any premium, or make-whole amount, or interest on, any debt security will be repaid to us if unclaimed at the end of two years after the obligation underlying payment becomes due and payable. After funds have been returned to us, the holder of the debt security may look only to us for payment, without payment of interest for the period which we hold the funds.

Denomination, Interest, Registration and Transfer

Unless otherwise described in the applicable prospectus supplement, the debt securities of any series will be issuable in denominations of \$1,000 and integral multiples of \$1,000.

Table of Contents

Subject to the limitations imposed upon debt securities that are evidenced by a computerized entry in the records of a depository company rather than by physical delivery of a note, a holder of debt securities of any series may:

- n exchange them for any authorized denomination of other debt securities of the same series and of a like aggregate principal amount and kind upon surrender of such debt securities at the corporate trust office of the applicable trustee or at the office of any transfer agent that we designate for such purpose; and

- n surrender them for registration of transfer or exchange at the corporate trust office of the applicable trustee or at the office of any transfer agent that we designate for such purpose.

Every debt security surrendered for registration of transfer or exchange must be duly endorsed or accompanied by a written instrument of transfer satisfactory to the applicable trustee or transfer agent. Payment of a service charge will not be required for any registration of transfer or exchange of any debt securities, but we or the trustee may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith. If in addition to the applicable trustee, the applicable prospectus supplement refers to any transfer agent initially designated by us for any series of debt securities, we may at any time rescind the designation of any such transfer agent or approve a change in the location through which any such transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for such series. We may at any time designate additional transfer agents for any series of debt securities.

Neither we, nor any trustee, will be required to:

- n issue, register the transfer of or exchange debt securities of any series during a period beginning at the opening of business 15 days before the day that the notice of redemption of any debt securities selected for redemption is mailed and ending at the close of business on the day of such mailing;
- n register the transfer of or exchange any debt security, or portion thereof, so selected for redemption, in whole or in part, except the unredeemed portion of any debt security being redeemed in part; and
- n issue, register the transfer of or exchange any debt security that has been surrendered for repayment at the option of the holder, except the portion, if any, of such debt security not to be so repaid.

Merger, Consolidation or Sale of Assets

The indentures provide that we may, without the consent of the holders of any outstanding debt securities, (1) consolidate with, (2) sell, lease or convey all or substantially all of our assets to, or (3) merge with or into, any other entity provided that:

- n either we are the continuing entity, or the successor entity, if other than us, assumes the obligations (A) to pay the principal of, and any premium (or make-whole amount) and interest on, all of the debt securities and (B) to duly perform and observe all of the covenants and conditions contained in each indenture;
- n after giving effect to the transaction, there is no event of default under the indentures and no event which, after notice or the lapse of time, or both, would become such an event of default, occurs and continues; and
- n an officers certificate and legal opinion covering such conditions are delivered to each applicable trustee.

Covenants

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Existence. Except as permitted under Merger, Consolidation or Sale of Assets, the indentures require us to do or cause to be done all things necessary to preserve and keep in full force and effect our existence, rights and franchises. However, the indentures do not require us to preserve any right or franchise if we determine that any right or franchise is no longer desirable in the conduct of our business.

Table of Contents

Payment of taxes and other claims. The indentures require us to pay, discharge or cause to be paid or discharged, before they become delinquent (1) all taxes, assessments and governmental charges levied or imposed on us, our subsidiaries or our subsidiaries' income, profits or property, and (2) all lawful claims for labor, materials and supplies which, if unpaid, might by law become a lien upon our property or the property of our subsidiaries. However, we will not be required to pay, discharge or cause to be paid or discharged any such tax, assessment, charge or claim whose amount, applicability or validity is being contested in good faith by appropriate proceedings.

Provision of financial information. The indentures require us to (1) within 15 days of each of the respective dates by which we are required to file our annual reports, quarterly reports and other documents with the SEC, file with the trustee copies of the annual report, quarterly report and other documents that we file with the SEC under Section 13 or 15(d) of the Exchange Act, (2) file with the trustee and the SEC any additional information, documents and reports regarding compliance by us with the conditions and covenants of the indentures, as required, (3) within 30 days after the filing with the trustee, mail to all holders of debt securities, as their names and addresses appear in the applicable register for such debt securities, without cost to such holders, summaries of any documents and reports required to be filed by us pursuant to (1) and (2) above, and (4) supply, promptly upon written request and payment of the reasonable cost of duplication and delivery, copies of such documents to any prospective holder.

Additional covenants. The applicable prospectus supplement will set forth any additional covenants of Mercury relating to any series of debt securities.

Events of Default, Notice and Waiver

Unless the applicable prospectus supplement states otherwise, when we refer to "events of default" as defined in the indentures with respect to any series of debt securities, we mean:

- n default in the payment of any installment of interest on any debt security of such series continuing for 30 days;
- n default in the payment of principal of, or any premium, or make-whole amount, on any debt security of such series for five business days at its stated maturity;
- n default in making any sinking fund payment as required for any debt security of such series for five business days;
- n default in the performance or breach of any covenant or warranty in the debt securities or in the indenture by Mercury continuing for 60 days after written notice as provided in the applicable indenture, but not of a covenant added to the indenture solely for the benefit of a series of debt securities issued thereunder other than such series;
- n a default under any bond, debenture, note, mortgage, indenture or instrument:

(1) having an aggregate principal amount of at least \$30,000,000; or

(2) under which there may be issued, secured or evidenced any existing or later created indebtedness for money borrowed by us or our subsidiaries, if we are directly responsible or liable as obligor or guarantor, if the default results in the indebtedness becoming or being declared due and payable prior to the date it otherwise would have, without such indebtedness having been discharged, or such acceleration having been rescinded or annulled, within 30 days after notice to the issuing company specifying such default. Such notice shall be given to us by the trustee, or to us and the trustee by the holders of at least 10% in principal amount of the outstanding debt securities of that series. The written notice specifying such default and requiring us to cause such indebtedness to be discharged or cause such acceleration to be rescinded or annulled and shall state that such notice is a "Notice of Default" under such indenture;

n bankruptcy, insolvency or reorganization, or court appointment of a receiver, liquidator or trustee of Mercury or any significant subsidiary of Mercury; and

n any other event of default provided with respect to a particular series of debt securities.

When we use the term significant subsidiary, we refer to the meaning ascribed to such term in Rule 1-02 of Regulation S-X promulgated under the Securities Act of 1933, as amended, or Securities Act.

Table of Contents

If an event of default occurs and is continuing with respect to debt securities of any series outstanding, then the applicable trustee or the holders of 25% or more in principal amount of the debt securities of that series will have the right to declare the principal amount of all the debt securities of that series to be due and payable. If the debt securities of that series are original issue discount securities or indexed securities, then the applicable trustee or the holders of 25% or more in principal amount of the debt securities of that series will have the right to declare the portion of the principal amount as may be specified in the terms thereof to be due and payable. However, at any time after such a declaration of acceleration has been made, but before a judgment or decree for payment of the money due has been obtained by the applicable trustee, the holders of at least a majority in principal amount of outstanding debt securities of such series or of all debt securities then outstanding under the applicable indenture may rescind and annul such declaration and its consequences if:

n we have deposited with the applicable trustee all required payments of the principal, any premium, or make-whole amount, interest and, to the extent permitted by law, interest on overdue installment of interest, plus applicable fees, expenses, disbursements and advances of the applicable trustee; and

n all events of default, other than the non-payment of accelerated principal, or a specified portion thereof, and any premium, or make-whole amount, have been cured or waived.

The indentures also provide that the holders of at least a majority in principal amount of the outstanding debt securities of any series or of all debt securities then outstanding under the applicable indenture may, on behalf of all holders, waive any past default with respect to such series and its consequences, except a default:

n in the payment of the principal, any premium, or make-whole amount, or interest;

n in respect of a covenant or provision contained in the applicable indenture that cannot be modified or amended without the consent of the holders of the outstanding debt security that is affected by the default; or

n in respect of a covenant or provision for the benefit or protection of the trustee, without its express written consent.

The indentures require each trustee to give notice to the holders of debt securities within 90 days of a default unless such default has been cured or waived. However, the trustee may withhold notice if specified persons of such trustee consider such withholding to be in the interest of the holders of debt securities. The trustee may not withhold notice of a default in the payment of principal, any premium or interest on any debt security of such series or in the payment of any sinking fund installment in respect of any debt security of such series.

The indentures provide that holders of debt securities of any series may not institute any proceedings, judicial or otherwise, with respect to such indenture or for any remedy under the indenture, unless the trustee fails to act for a period of 60 days after the trustee has received a written request to institute proceedings in respect of an event of default from the holders of 25% or more in principal amount of the outstanding debt securities of such series, as well as an offer of indemnity reasonably satisfactory to the trustee. However, this provision will not prevent any holder of debt securities from instituting suit for the enforcement of payment of the principal of, and any premium, or make-whole amount, and interest on, such debt securities at the respective due dates thereof.

The indentures provide that, subject to provisions in each indenture relating to its duties in the case of a default, a trustee has no obligation to exercise any of its rights or powers at the request or direction of any holders of any series of debt securities then outstanding under the indenture, unless the holders have offered to the trustee reasonable security or indemnity. The holders of at least a majority in principal amount of the outstanding debt securities of any series or of all debt securities then outstanding under an indenture shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the applicable trustee, or of exercising any trust or power conferred upon such trustee. However, a trustee may refuse to follow any direction which:

n is in conflict with any law or the applicable indenture;

n may involve the trustee in personal liability; or

n may be unduly prejudicial to the holders of debt securities of the series not joining the proceeding.

Table of Contents

Within 120 days after the close of each fiscal year, we will be required to deliver to each trustee a certificate, signed by one of our several specified officers, stating whether or not that officer has knowledge of any default under the applicable indenture. If the officer has knowledge of any default, the notice must specify the nature and status of the default.

Modification of the Indentures

The indentures provide that modifications and amendments may be made only with the consent of the affected holders of at least a majority in principal amount of all outstanding debt securities issued under that indenture. However, no such modification or amendment may, without the consent of the holders of the debt securities affected by the modification or amendment:

- n change the stated maturity of the principal of, or any premium, or make-whole amount, on, or any installment of principal of or interest on, any such debt security;
- n reduce the principal amount of, the rate or amount of interest on or any premium, or make-whole amount, payable on redemption of any such debt security;
- n reduce the amount of principal of an original issue discount security that would be due and payable upon declaration of acceleration of the maturity thereof or would be provable in bankruptcy, or adversely affect any right of repayment of the holder of any such debt security;
- n change the place of payment or the coin or currency for payment of principal of, or any premium, or make-whole amount, or interest on, any such debt security;
- n impair the right to institute suit for the enforcement of any payment on or with respect to any such debt security;
- n reduce the percentage in principal amount of any outstanding debt securities necessary to modify or amend the applicable indenture with respect to such debt securities, to waive compliance with particular provisions thereof or defaults and consequences thereunder or to reduce the quorum or voting requirements set forth in the applicable indenture; and
- n modify any of the foregoing provisions or any of the provisions relating to the waiver of particular past defaults or covenants, except to increase the required percentage to effect such action or to provide that some of the other provisions may not be modified or waived without the consent of the holder of such debt security.

The holders of a majority in aggregate principal amount of the outstanding debt securities of each series may, on behalf of all holders of debt securities of that series, waive, insofar as that series is concerned, our compliance with material restrictive covenants of the applicable indenture.

We and our respective trustee may make modifications and amendments of an indenture without the consent of any holder of debt securities for any of the following purposes:

- n to evidence the succession of another person to us as obligor under such indenture;
- n to add to our covenants for the benefit of the holders of all or any series of debt securities or to surrender any right or power conferred upon us in such indenture;

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

- n to add events of default for the benefit of the holders of all or any series of debt securities;

- n to add or change any provisions of an indenture (1) to change or eliminate restrictions on the payment of principal of, or premium, or make-whole amount, or interest on, debt securities in bearer form, or (2) to permit or facilitate the issuance of debt securities in uncertificated form, provided that such action shall not adversely affect the interests of the holders of the debt securities of any series in any material respect;

- n to change or eliminate any provisions of an indenture, provided that any such change or elimination shall become effective only when there are no debt securities outstanding of any series created prior thereto which are entitled to the benefit of such provision;

Table of Contents

- n to secure the debt securities;
- n to establish the form or terms of debt securities of any series;
- n to provide for the acceptance of appointment by a successor trustee or facilitate the administration of the trusts under an indenture by more than one trustee;
- n to cure any ambiguity, defect or inconsistency in an indenture, provided that such action shall not adversely affect the interests of holders of debt securities of any series issued under such indenture; and
- n to supplement any of the provisions of an indenture to the extent necessary to permit or facilitate defeasance and discharge of any series of such debt securities, provided that such action shall not adversely affect the interests of the holders of the outstanding debt securities of any series.

Voting

The indentures provide that in determining whether the holders of the requisite principal amount of outstanding debt securities of a series have given any request, demand, authorization, direction, notice, consent or waiver under the indentures or whether a quorum is present at a meeting of holders of debt securities:

- n the principal amount of an original issue discount security that shall be deemed to be outstanding shall be the amount of the principal thereof that would be due and payable as of the date of such determination upon declaration of acceleration of the maturity thereof;
- n the principal amount of any debt security denominated in a foreign currency that shall be deemed outstanding shall be the United States dollar equivalent, determined on the issue date for such debt security, of the principal amount or, in the case of an original issue discount security, the United States dollar equivalent on the issue date of such debt security of the amount determined as provided in the preceding bullet point;
- n the principal amount of an indexed security that shall be deemed outstanding shall be the principal face amount of such indexed security at original issuance, unless otherwise provided for such indexed security under such indenture; and
- n debt securities owned by us or any other obligor upon the debt securities or by any affiliate of ours or of such other obligor shall be disregarded.

The indentures contain provisions for convening meetings of the holders of debt securities of a series. A meeting will be permitted to be called at any time by the applicable trustee, and also, upon request, by us or the holders of at least 25% in principal amount of the outstanding debt securities of such series, in any such case upon notice given as provided in such indenture. Except for any consent that must be given by the holder of each debt security affected by the modifications and amendments of an indenture described above, any resolution presented at a meeting or adjourned meeting duly reconvened at which a quorum is present may be adopted by the affirmative vote of the holders of a majority of the aggregate principal amount of the outstanding debt securities of that series represented at such meeting.

Notwithstanding the preceding paragraph, except as referred to above, any resolution relating to a request, demand, authorization, direction, notice, consent, waiver or other action that may be made, given or taken by the holders of a specified percentage, which is less than a majority of the aggregate principal amount of the outstanding debt securities of a series, may be adopted at a meeting or adjourned meeting duly reconvened at which a quorum is present by the affirmative vote of such specified percentage.

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Any resolution passed or decision taken at any properly held meeting of holders of debt securities of any series will be binding on all holders of such series. The quorum at any meeting called to adopt a resolution, and at any reconvened meeting, will be persons holding or representing a majority in principal amount of the outstanding debt securities of a series. However, if any action is to be taken relating to a consent or waiver which may be given by the holders of at least a specified percentage in principal amount of the outstanding debt securities of a series, the persons holding such percentage will constitute a quorum.

Table of Contents

Notwithstanding the foregoing provisions, the indentures provide that if any action is to be taken at a meeting with respect to any request, demand, authorization, direction, notice, consent, waiver or other action that such indenture expressly provides may be made, given or taken by the holders of a specified percentage in principal amount of all outstanding debt securities affected by such action, or of the holders of such series and one or more additional series:

n there shall be no minimum quorum requirement for such meeting; and

n the principal amount of the outstanding debt securities of such series that vote in favor of such request, demand, authorization, direction, notice, consent, waiver or other action shall be taken account in determining whether such request, demand, authorization, direction, notice, consent, waiver or other action has been made, given or taken under such indenture.

Subordination

Unless otherwise provided in the applicable prospectus supplement, subordinated securities will be subject to the following subordination provisions.

Upon any distribution to our creditors in a liquidation, dissolution or reorganization, the payment of the principal of and interest on any subordinated securities will be subordinated to the extent provided in the applicable indenture in right of payment to the prior payment in full of all senior debt. However, our obligation to make payments of the principal of and interest on such subordinated securities otherwise will not be affected. No payment of principal or interest will be permitted to be made on subordinated securities at any time if a default on senior debt exists that permits the holders of such senior debt to accelerate its maturity and the default is the subject of judicial proceedings or we receive notice of the default. After all senior debt is paid in full and until the subordinated securities are paid in full, holders of subordinated securities will be subrogated to the rights of holders of senior debt to the extent that distributions otherwise payable to holders of subordinated securities have been applied to the payment of senior debt. The subordinated indenture will not restrict the amount of senior debt or other indebtedness of Mercury and its subsidiaries. As a result of these subordination provisions, in the event of a distribution of assets upon insolvency, holders of subordinated securities may recover less, ratably, than our general creditors.

The term *senior debt* will be defined in the applicable indenture as the principal of and interest on, or substantially similar payments to be made by us in respect of, other outstanding indebtedness, whether outstanding at the date of execution of the applicable indenture or subsequently incurred, created or assumed. The prospectus supplement may include a description of additional terms implementing the subordination feature.

No restrictions will be included in any indenture relating to subordinated securities upon the creation of additional senior debt.

If this prospectus is being delivered in connection with the offering of a series of subordinated securities, the accompanying prospectus supplement or the information incorporated in this prospectus by reference will set forth the approximate amount of senior debt outstanding as of the end of our most recent fiscal quarter.

Discharge, Defeasance and Covenant Defeasance

Unless otherwise indicated in the applicable prospectus supplement, the indentures allow us to discharge our obligations to holders of any series of debt securities issued under any indenture when:

n either (1) all securities of such series have already been delivered to the applicable trustee for cancellation; or (2) all securities of such series have not already been delivered to the applicable trustee for cancellation but (A) have become due and payable, (B) will become due and payable within one year, or (C) if redeemable at our option, are to be redeemed within one year, and we have irrevocably deposited with the applicable trustee, in trust, funds in such currency or currencies, currency unit or units or composite currency or currencies in which such debt securities are payable, an amount sufficient to pay the entire indebtedness on such debt securities in respect of principal and any premium, or make-whole amount, and interest to the date of such deposit if such debt securities have become due and payable or, if they have not, to the stated maturity or redemption date;

Table of Contents

n we have paid or caused to be paid all other sums payable; and

n an officers' certificate and an opinion of counsel stating the conditions to discharging the debt securities have been satisfied has been delivered to the trustee.

Unless otherwise indicated in the applicable prospectus supplement, the indentures provide that, upon our irrevocable deposit with the applicable trustee, in trust, of an amount, in such currency or currencies, currency unit or units or composite currency or currencies in which such debt securities are payable at stated maturity, or government obligations, or both, applicable to such debt securities, which through the scheduled payment of principal and interest in accordance with their terms will provide money in an amount sufficient to pay the principal of, and any premium, or make-whole amount, and interest on, such debt securities, and any mandatory sinking fund or analogous payments thereon, on the scheduled due dates therefor, the issuing company may elect either:

n to defease and be discharged from any and all obligations with respect to such debt securities; or

n to be released from its obligations with respect to such debt securities under the applicable indenture or, if provided in the applicable prospectus supplement, its obligations with respect to any other covenant, and any omission to comply with such obligations shall not constitute an event of default with respect to such debt securities.

Notwithstanding the above, we may not elect to defease and be discharged from the obligation to pay any additional amounts upon the occurrence of particular events of tax, assessment or governmental charge with respect to payments on such debt securities and the obligations to register the transfer or exchange of such debt securities, to replace temporary or mutilated, destroyed, lost or stolen debt securities, to maintain an office or agency in respect of such debt securities, or to hold monies for payment in trust.

The indentures only permit us to establish the trust described in the paragraph above if, among other things, it has delivered to the applicable trustee an opinion of counsel to the effect that the holders of such debt securities will not recognize income, gain or loss for United States federal income tax purposes as a result of such defeasance or covenant defeasance and will be subject to United States federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such defeasance or covenant defeasance had not occurred. Such opinion of counsel, in the case of defeasance, will be required to refer to and be based upon a ruling received from or published by the Internal Revenue Service or a change in applicable United States federal income tax law occurring after the date of the indenture. In the event of such defeasance, the holders of such debt securities would be able to look only to such trust fund for payment of principal, any premium, or make-whole amount, and interest.

When we use the term "government obligations," we mean securities that are:

n direct obligations of the United States or the government that issued the foreign currency in which the debt securities of a particular series are payable, for the payment of which its full faith and credit is pledged; or

n obligations of a person controlled or supervised by and acting as an agency or instrumentality of the United States or other government that issued the foreign currency in which the debt securities of such series are payable, the payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States or such other government, which are not callable or redeemable at the option of the issuer thereof and shall also include a depository receipt issued by a bank or trust company as custodian with respect to any such government obligation or a specific payment of interest on or principal of any such government obligation held by such custodian for the account of the holder of a depository receipt. However, except as required by law, such custodian is not authorized to make any deduction from the amount payable to the holder of such depository receipt from any amount received by the custodian in respect of the government obligation or the specific payment of interest on or principal of the government obligation evidenced by such depository receipt.

Unless otherwise provided in the applicable prospectus supplement, if after we have deposited funds and/or government obligations to effect defeasance or covenant defeasance with respect to debt securities of any series, (1) the holder of a debt security of such series is entitled to, and does, elect under the terms of the applicable indenture or the terms of

Table of Contents

such debt security to receive payment in a currency, currency unit or composite currency other than that in which such deposit has been made in respect of such debt security, or (2) a conversion event occurs in respect of the currency, currency unit or composite currency in which such deposit has been made, the indebtedness represented by such debt security will be deemed to have been, and will be, fully discharged and satisfied through the payment of the principal of, and premium, or make-whole amount, and interest on, such debt security as they become due out of the proceeds yielded by converting the amount so deposited in respect of such debt security into the currency, currency unit or composite currency in which such debt security becomes payable as a result of such election or such cessation of usage based on the applicable market exchange rate.

When we use the term "conversion event," we mean the cessation of use of:

- n a currency, currency unit or composite currency both by the government of the country that issued such currency and for the settlement of transactions by a central bank or other public institutions of or within the international banking community;
 - n the European Currency Unit both within the European Monetary System and for the settlement of transactions by public institutions of or within the European Communities; or
 - n any currency unit or composite currency other than the European Currency Unit for the purposes for which it was established.
- Unless otherwise provided in the applicable prospectus supplement, all payments of principal of, and any premium, or make-whole amount, and interest on, any debt security that is payable in a foreign currency that ceases to be used by its government of issuance shall be made in United States dollars.

In the event that (1) we effect covenant defeasance with respect to any debt securities and (2) those debt securities are declared due and payable because of the occurrence of any event of default, the amount in the currency, currency unit or composite currency in which such debt securities are payable, and government obligations on deposit with the applicable trustee, will be sufficient to pay amounts due on such debt securities at the time of their stated maturity but may not be sufficient to pay amounts due on such debt securities at the time of the acceleration resulting from such event of default. However, the issuing company would remain liable to make payments of any amounts due at the time of acceleration.

The applicable prospectus supplement may further describe the provisions, if any, permitting such defeasance or covenant defeasance, including any modifications to the provisions described above, with respect to the debt securities of or within a particular series.

Conversion Rights

The terms and conditions, if any, upon which the debt securities are convertible into common stock or preferred stock will be set forth in the applicable prospectus supplement. The terms will include whether the debt securities are convertible into shares of common stock or preferred stock, the conversion price, or manner of calculation thereof, the conversion period, provisions as to whether conversion will be at the issuing company's option or the option of the holders, the events requiring an adjustment of the conversion price and provisions affecting conversion in the event of the redemption of the debt securities and any restrictions on conversion.

Global Securities

The debt securities of a series may be issued in whole or in part in the form of one or more global securities that will be deposited with, or on behalf of, a depository identified in the applicable prospectus supplement relating to such series. Global securities, if any, issued in the United States are expected to be deposited with The Depository Trust Company, or DTC, as depository. We may issue global securities in either registered or bearer form and in either temporary or permanent form. We will describe the specific terms of the depository arrangement with respect to a series of debt securities in the applicable prospectus supplement relating to such series. We expect that unless the applicable prospectus supplement provides otherwise, the following provisions will apply to depository arrangements.

Table of Contents

Once a global security is issued, the depository for such global security or its nominee will credit on its book-entry registration and transfer system the respective principal amounts of the individual debt securities represented by such global security to the accounts of participants that have accounts with such depository. Such accounts shall be designated by the underwriters, dealers or agents with respect to such debt securities or by us if we offer such debt securities directly. Ownership of beneficial interests in such global security will be limited to participants with the depository or persons that may hold interests through those participants.

We expect that, under procedures established by DTC, ownership of beneficial interests in any global security for which DTC is the depository will be shown on, and the transfer of that ownership will be effected only through, records maintained by DTC or its nominee, with respect to beneficial interests of participants with the depository, and records of participants, with respect to beneficial interests of persons who hold through participants with the depository. Neither we nor the trustee will have any responsibility or liability for any aspect of the records of DTC or for maintaining, supervising or reviewing any records of DTC or any of its participants relating to beneficial ownership interests in the debt securities. The laws of some states require that certain purchasers of securities take physical delivery of such securities in definitive form. Such limits and laws may impair the ability to own, pledge or transfer beneficial interest in a global security.

So long as the depository for a global security or its nominee is the registered owner of such global security, such depository or such nominee, as the case may be, will be considered the sole owner or holder of the debt securities represented by the global security for all purposes under the applicable indenture. Except as described below or in the applicable prospectus supplement, owners of beneficial interest in a global security will not be entitled to have any of the individual debt securities represented by such global security registered in their names, will not receive or be entitled to receive physical delivery of any such debt securities in definitive form and will not be considered the owners or holders thereof under the applicable indenture. Beneficial owners of debt securities evidenced by a global security will not be considered the owners or holders thereof under the applicable indenture for any purpose, including with respect to the giving of any direction, instructions or approvals to the trustee under the indenture. Accordingly, each person owning a beneficial interest in a global security with respect to which DTC is the depository must rely on the procedures of DTC and, if such person is not a participant with the depository, on the procedures of the participant through which such person owns its interests, to exercise any rights of a holder under the applicable indenture. We understand that, under existing industry practice, if DTC requests any action of holders or if an owner of a beneficial interest in a global security desires to give or take any action which a holder is entitled to give or take under the applicable indenture, DTC would authorize the participants holding the relevant beneficial interest to give or take such action, and such participants would authorize beneficial owners through such participants to give or take such actions or would otherwise act upon the instructions of beneficial owners holding through them.

Payments of principal of, and any premium, or make-whole amount, and interest on, individual debt securities represented by a global security registered in the name of a depository or its nominee will be made to or at the direction of the depository or its nominee, as the case may be, as the registered owner of the global security under the applicable indenture. Under the terms of the applicable indenture, we and the trustee may treat the persons in whose name debt securities, including a global security, are registered as the owners thereof for the purpose of receiving such payments. Consequently, neither we nor the trustee have or will have any responsibility or liability for the payment of such amounts to beneficial owners of debt securities including principal, any premium, or make-whole amount, or interest. We believe, however, that it is currently the policy of DTC to immediately credit the accounts of relevant participants with such payments, in amounts proportionate to their respective holdings of beneficial interests in the relevant global security as shown on the records of DTC or its nominee. We also expect that payments by participants to owners of beneficial interests in such global security held through such participants will be governed by standing instructions and customary practices, as is the case with securities held for the account of customers in bearer form or registered in street name, and will be the responsibility of such participants. Redemption notices with respect to any debt securities represented by a global security will be sent to the depository or its nominee. If less than all of the debt securities of any series are to be redeemed, we expect the depository to determine the amount of the interest of each participant in such debt securities to be redeemed to be determined by lot. Neither we, the trustee, any paying agent nor the security registrar for such debt securities will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in the global security for such debt securities or for maintaining any records with respect thereto.

Table of Contents

Neither we nor the trustee will be liable for any delay by the holders of a global security or the depository in identifying the beneficial owners of debt securities, and we and the trustee may conclusively rely on, and will be protected in relying on, instructions from the holder of a global security or the depository for all purposes. The rules applicable to DTC and its participants are on file with the SEC.

If a depository for any debt securities is at any time unwilling, unable or ineligible to continue as depository and we do not appoint a successor depository within 90 days, we will issue individual debt securities in exchange for the global security representing such debt securities. In addition, we may at any time and in their sole discretion, subject to any limitations described in the applicable prospectus supplement relating to such debt securities, determine not to have any of such debt securities represented by one or more global securities and in such event will issue individual debt securities in exchange for the global security or securities representing such debt securities. Individual debt securities so issued will be issued in denominations of \$1,000 and integral multiples of \$1,000.

The debt securities of a series may also be issued in whole or in part in the form of one or more bearer global securities that will be deposited with a depository, or with a nominee for such depository, identified in the applicable prospectus supplement. Any such bearer global securities may be issued in temporary or permanent form. The specific terms and procedures, including the specific terms of the depository arrangement, with respect to any portion of a series of debt securities to be represented by one or more bearer global securities will be described in the applicable prospectus supplement.

No Recourse

There is no recourse under any obligation, covenant or agreement in the applicable indenture or with respect to any security against any of our or our successors past, present or future stockholders, employees, officers or directors.

Table of Contents

Description of Preferred Stock

The following is a description of the material terms and provisions of our preferred stock. It may not contain all the information that is important to you. You can access complete information by referring to our articles of organization and bylaws and to any applicable amendment to the articles of organization designating terms of a series of preferred stock. See **Description of Common Stock** for additional terms of our capital stock.

General

Under our articles of organization, we have authority to issue 875,000 shares of preferred stock, par value \$.01 per share. We also have authority to issue 125,000 shares of Series B preferred stock, par value \$.01 per share, all of which shares are designated as **Series B Junior Participating Cumulative Preferred Stock**. The powers, preferences, rights, qualifications, limitations and restrictions of shares of our preferred stock and our Series B preferred stock have been fixed in amendments to our articles of organization. As of March 31, 2009, no shares of preferred stock or Series B preferred stock were issued and outstanding.

Shares of preferred stock or Series B preferred stock may be issued from time to time, in one or more series, as authorized by our board of directors. Prior to the issuance of shares of each series, the board of directors is required by the Massachusetts General Laws and our articles of organization to fix, for each series, the designations, powers, including voting powers, full or limited, or no voting powers, preferences and the relative, participating, optional or other special rights of the shares of each series and any qualifications, limitations and restrictions thereof, as are permitted by Massachusetts law. Our board of directors could authorize the issuance of shares of preferred stock or Series B preferred stock with terms and conditions that could have the effect of discouraging a takeover or other transactions that holders of common stock might believe to be in their best interests or in which holders of some, or a majority, of the shares of common stock might receive a premium for their shares over the then market price of such shares of common stock. When issued, the preferred stock or Series B preferred stock will be fully paid and nonassessable.

Terms

You should refer to the applicable prospectus supplement relating to the preferred stock offered thereby for specific terms, including, where applicable, the following terms:

- n the distinctive serial designation and the number of shares constituting such series;
- n the dividend rates or the amount of dividends to be paid on the shares of such series, whether dividends shall be cumulative and, if so, from which date or dates, the payment date or dates for dividends, and the participating and other rights, if any, with respect to dividends;
- n the voting powers, full or limited, if any, of the shares of such series;
- n whether the shares of such series shall be redeemable and, if so, the price or prices at which, and the terms and conditions on which, such shares may be redeemed;
- n the amount or amounts payable upon the shares of such series and any preferences applicable thereto in the event of voluntary or involuntary liquidation, dissolution or winding up of the company;
- n whether the shares of such series shall be entitled to the benefit of a sinking or retirement fund to be applied to the purchase or redemption of such shares, and if so entitled, the amount of such fund and the manner of its application, including the price or prices at which such shares may be redeemed or purchased through the application of such fund;

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

- n whether the shares of such series shall be convertible into, or exchangeable for, shares of any other class or classes or of any other series of the same or any other class or classes of stock of the company and, if so convertible or exchangeable, the conversion price or prices, or the rate or rates of exchange, and the adjustments thereof, if any, at which such conversion or exchange may be made, and any other terms and conditions of such conversion or exchange;

Table of Contents

- n the price or other consideration for which the shares of such series shall be issued;
- n whether the shares of such series which are redeemed or converted shall have the status of authorized but unissued shares of undesignated preferred stock (or series thereof) and whether such shares may be reissued as shares of the same or any other class or series of stock; and
- n such other powers, preferences, rights, qualifications, limitations and restrictions thereof as the board of directors may deem advisable.

Rank

Unless otherwise specified in the prospectus supplement, the preferred stock will, with respect to dividend rights and rights upon our liquidation, dissolution or winding up our affairs, rank:

- n senior to all classes or series of our common stock and to all equity securities ranking junior to such preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up our affairs;
 - n on a parity with all equity securities issued by us, the terms of which specifically provide that such equity securities rank on a parity with the preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs; and
 - n junior to all equity securities issued by us, the terms of which specifically provide that such equity securities rank senior to the preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs.
- The term equity securities does not include convertible debt securities.

Dividends

Holders of the preferred stock of each series will be entitled to receive cash dividends, when, as and if declared by our board of directors. We will pay dividends out of assets which are legally available for payment of dividends. We will specify the rate(s) of dividends and the dates that we will pay dividends in the applicable prospectus supplement. Dividends will be payable to holders of record as they appear on our stock transfer books on such record dates as shall be fixed by our board of directors.

Dividends on any series of the preferred stock may be cumulative or non-cumulative, as provided in the applicable prospectus supplement. Dividends, if cumulative, will be cumulative from and after the date set forth in the applicable prospectus supplement. If our board of directors fails to declare a dividend payable on a dividend payment date on any series of the preferred stock for which dividends are non-cumulative, then the holders of such series of the preferred stock will have no right to receive a dividend in respect of the dividend period ending on that dividend payment date. Accordingly, we will have no obligation to pay the dividend accrued for that period, whether or not dividends on that series are declared payable on any future dividend payment date.

If preferred stock of any series is outstanding, we will not declare, pay or set aside funds to pay dividends on any other series of our capital stock ranking, as to dividends, on parity with or junior to the preferred stock of such series for any period unless:

- n if that series of preferred stock has a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full cumulative dividends on the preferred stock of such series for all past dividend periods and the then current dividend period; or
- n if that series of preferred stock does not have a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full dividends on the preferred stock of such series for the then current dividend period.

Table of Contents

We must declare all dividends pro rata on all series of preferred stock that rank on parity with the series of preferred stock upon which we paid dividends if we did not pay or set aside funds to pay dividends on the series of preferred stock in full. We must declare dividends pro rata to ensure that the amount of dividends declared per share of preferred stock bear in all cases the same ratio that accrued dividends per share of preferred stock bears to each other. We will not accumulate unpaid dividends for prior dividend periods with respect to accrued dividends on preferred stock that do not have cumulative dividends. No interest, or sum of money in lieu of interest, shall be payable in respect of any dividend payment or payments on preferred stock of such series which may be in arrears.

Except as provided in the immediately preceding paragraph, unless:

- n if such series of preferred stock has a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full cumulative dividends for all past dividend periods and the then current dividend period; or
 - n if such series of preferred stock does not have a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full dividends for the then current dividend period;
- we will not: (1) declare or pay or set aside funds to pay dividends; (2) declare or make any other distribution upon the common stock or any other shares of our stock ranking junior to or on parity with the preferred stock of such series as to dividends or upon liquidation; (3) redeem, purchase or otherwise acquire for any consideration any common stock, or any other shares of our stock ranking junior to or on parity with the preferred stock of such series as to dividends; nor (4) pay any monies to or make any monies available for a sinking fund to redeem of any such shares, except by conversion into or exchange for other of our shares of our capital stock ranking junior to the preferred stock of such series as to dividends or liquidation. Notwithstanding the preceding sentence, we may declare or set aside dividends in common stock or other shares of capital stock ranking junior to the preferred stock of such series as to dividends and upon liquidation.

Any dividend payment we make on a series of preferred stock shall first be credited against the earliest accrued but unpaid dividend due with respect to shares of such series which remain payable.

Redemption

If so provided in the applicable prospectus supplement, the preferred stock will be subject to mandatory redemption or redemption at our option, as a whole or in part, in each case upon the terms, at the times and at the redemption prices set forth in such prospectus supplement.

The prospectus supplement relating to a series of preferred stock that is subject to mandatory redemption will specify the number of shares of preferred stock that shall be redeemed by us in each year commencing after a date to be specified, at a redemption price per share to be specified, together with an amount equal to all accrued and unpaid dividends thereon to the date of redemption. Unless the shares have a cumulative dividend, such accrued dividends will not include any accumulation in respect of unpaid dividends for prior dividend periods. We may pay the redemption price in cash or other property, as specified in the applicable prospectus supplement. If the redemption price for preferred stock of any series is payable only from the net proceeds of the issuance of shares of our capital stock, the terms of such preferred stock may provide that, if no such shares of our capital stock shall have been issued or to the extent the net proceeds from any issuance are insufficient to pay in full the aggregate redemption price then due, such preferred stock shall automatically and mandatorily be converted into the applicable shares of our capital stock pursuant to conversion provisions specified in the applicable prospectus supplement.

Notwithstanding the foregoing, we will not redeem any preferred stock of a series unless:

- n if that series of preferred stock has a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full cumulative dividends on the preferred stock for the past and current dividend period; or
- n if such series of preferred stock does not have a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full dividends for the current dividend period.

Table of Contents

However, in no case will we redeem any preferred stock of a series unless we redeem all outstanding preferred stock of such series simultaneously.

In addition, we will not acquire any preferred stock of a series unless:

- n if that series of preferred stock has a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full cumulative dividends on all outstanding shares of such series of preferred stock for all past dividend periods and the then current dividend period; or
- n if that series of preferred stock does not have a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full dividends on the preferred stock of such series for the then current dividend period.

However, at any time we may purchase or acquire preferred stock of that series (1) pursuant to a purchase or exchange offer made on the same terms to holders of all outstanding preferred stock of such series or (2) by conversion into or exchange for shares of our capital stock ranking junior to the preferred stock of such series as to dividends and upon liquidation.

If fewer than all of the outstanding shares of preferred stock of any series are to be redeemed, we will determine the number of shares that may be redeemed pro rata from the holders of record of such shares in proportion to the number of such shares held or for which redemption is requested by such holder or by any other equitable manner that we determine. Such determination will reflect adjustments to avoid redemption of fractional shares.

We will mail a notice of redemption at least 30 days but not more than 60 days before the redemption date to each holder of record of preferred stock to be redeemed at the address shown on our stock transfer books. Each notice shall state:

- n the redemption date;
 - n the number of shares and series of the preferred stock to be redeemed;
 - n the redemption price;
 - n the place or places where certificates for such preferred stock are to be surrendered for payment of the redemption price;
 - n that dividends on the shares to be redeemed will cease to accrue on such redemption date;
 - n the date upon which the holder's conversion rights, if any, as to such shares shall terminate; and
 - n the specific number of shares to be redeemed from each such holder if fewer than all the shares of any series are to be redeemed.
- If a notice of redemption has been given and we have set aside the funds necessary for such redemption in trust for the benefit of the holders of any shares so called for redemption, then from and after the redemption date, dividends will cease to accrue on such shares, and all rights of the holders of such shares will terminate, except the right to receive the redemption price.

Liquidation Preference

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Upon any voluntary or involuntary liquidation, dissolution or winding up of our affairs, then, before we make any distribution or payment to the holders of any common stock or any other class or series of our capital stock ranking junior to the preferred stock in the distribution of assets upon any liquidation, dissolution or winding up of our affairs, the holders of each series of preferred stock shall be entitled to receive out of assets legally available for distribution to stockholders, liquidating distributions in the amount of the liquidation preference per share set forth in the applicable prospectus supplement, plus any accrued and unpaid dividends thereon. Such dividends

Table of Contents

will not include any accumulation in respect of unpaid noncumulative dividends for prior dividend periods. After payment of the full amount of their liquidating distributions, the holders of preferred stock will have no right or claim to any of our remaining assets. Upon any such voluntary or involuntary liquidation, dissolution or winding up, if our available assets are insufficient to pay the amount of the liquidating distributions on all outstanding preferred stock and the corresponding amounts payable on all other classes or series of our capital stock ranking on parity with the preferred stock and all other such classes or series of shares of capital stock ranking on parity with the preferred stock in the distribution of assets, then the holders of the preferred stock and all other such classes or series of capital stock will share ratably in any such distribution of assets in proportion to the full liquidating distributions to which they would otherwise be entitled.

Upon liquidation, dissolution or winding up and if we have made liquidating distributions in full to all holders of preferred stock, we will distribute our remaining assets among the holders of any other classes or series of capital stock ranking junior to the preferred stock according to their respective rights and preferences and, in each case, according to their respective number of shares. For such purposes, our consolidation or merger with or into any other corporation, trust or entity, or the sale, lease or conveyance of all or substantially all of our property or business will not be deemed to constitute a liquidation, dissolution or winding up of our affairs.

Voting Rights

Holders of preferred stock will not have any voting rights, except as described in the next paragraph, as otherwise from time to time required by law or as indicated in the applicable prospectus supplement.

Unless otherwise provided for any series of preferred stock, so long as any preferred stock of a series remains outstanding, we will not, without the affirmative vote or consent of the holders of at least two-thirds of the preferred stock of such series outstanding at the time, given in person or by proxy, either in writing or at a meeting with each of such series voting separately as a class:

- n authorize, or create, or increase the authorized or issued amount of, any class or series of shares of capital stock ranking senior to such series of preferred stock with respect to payment of dividends or the distribution of assets upon liquidation, dissolution or winding up, or reclassify any of our authorized shares of capital stock into such shares, or create, authorize or issue any obligation or security convertible into or evidencing the right to purchase any such shares; or
- n amend, alter or repeal the provisions of our articles of organization or the amendment to our articles of organization designating the terms for such series of preferred stock, whether by merger, consolidation or otherwise, so as to materially and adversely affect any right, preference, privilege or voting power of such series of preferred stock or the holders thereof.

Notwithstanding the preceding bullet point, if the preferred stock remains outstanding with the terms thereof materially unchanged, the occurrence of any of the events described above shall not be deemed to materially and adversely affect the rights, preferences, privileges or voting power of holders of preferred stock, even if upon the occurrence of such an event we may not be the surviving entity. In addition, any increase in the amount of (1) authorized preferred stock or the creation or issuance of any other series of preferred stock, or (2) authorized shares of such series or any other series of preferred stock, in each case ranking on parity with or junior to the preferred stock of such series with respect to payment of dividends or the distribution of assets upon liquidation, dissolution or winding up, shall not be deemed to materially and adversely affect such rights, preferences, privileges or voting powers.

The foregoing voting provisions will not apply if, at or prior to the time when the act with respect to which such vote would otherwise be required will be effected, we have redeemed or called for redemption all outstanding shares of such series of preferred stock and, if called for redemption, have deposited sufficient funds in trust to effect such redemption.

Table of Contents

Conversion Rights

The terms and conditions, if any, upon which any series of preferred stock is convertible into common stock will be set forth in the applicable prospectus supplement relating thereto. Such terms will include the number of shares of common stock into which the shares of preferred stock are convertible, the conversion price, rate or manner of calculation thereof, the conversion period, provisions as to whether conversion will be at our option or at the option of the holders of the preferred stock, the events requiring an adjustment of the conversion price and provisions affecting conversion in the event of the redemption.

Transfer Agent

The transfer agent and registrar for the preferred stock will be set forth in the applicable prospectus supplement.

Table of Contents

Description of Common Stock

The following is a description of the material terms and provisions of our common stock. It may not contain all the information that is important to you. You can access complete information by referring to our articles of organization and bylaws.

General

Under our articles of organization, we have authority to issue 85,000,000 shares of common stock, par value \$.01 per share. As of April 3, 2009, 22,653,523 shares of common stock were issued and outstanding. All shares of common stock will, when issued, be duly authorized, fully paid and nonassessable. Thus, the full price for the outstanding shares of common stock will have been paid at issuance and any holder of our common stock will not be later required to pay us any additional money for such common stock.

Dividends

Subject to preferential rights of any other class or series of stock, holders of common stock may receive dividends out of assets that we can legally use to pay dividends, when, as and if they are declared by our board of directors. In the event we are liquidated, dissolved or our affairs are wound up, after we pay or make adequate provision for all of our known debts and liabilities, each holder of common stock will receive dividends pro rata out of assets that we can legally use to pay distributions, subject to any rights that are granted to the holders of any class or series of preferred stock.

Voting Rights

Holders of common stock will have the exclusive power to vote on all matters presented to our stockholders, including the election of directors, except as otherwise provided by Massachusetts law or as provided with respect to any other class or series of stock. Holders of common stock are entitled to one vote per share. There is no cumulative voting in the election of our directors, which means that, subject to any rights to elect directors that are granted to the holders of any class or series of preferred stock, a plurality of the votes cast at a meeting of stockholders at which a quorum is present is sufficient to elect a director.

Other Rights

Subject to the preferential rights of any other class or series of stock, all shares of common stock have equal dividend, distribution, liquidation and other rights, and have no preference, appraisal or exchange rights, except for any appraisal rights provided by Massachusetts law. Furthermore, holders of common stock have no conversion, sinking fund or redemption rights, or preemptive rights to subscribe for any of our securities.

Classified Board and Other Matters

Our board of directors is divided into three classes, each of which serves until the third annual meeting of shareholders after their election, with one class being elected each year. Under the Massachusetts General Laws, in a corporation with a classified board, shareholders may remove a director only for cause. Our bylaws require that shareholders provide the Secretary of our company with 60 days advance notice prior to the date set forth in the bylaws for an annual meeting of shareholders or special meeting in lieu thereof for the purpose of any director nominations or within ten days after notice of a special meeting not in lieu of an annual meeting. Our bylaws provide that special meetings of shareholders of our company may be called only by a majority of the board of directors, the President or 30% in interest of the shareholders. Our bylaws, as well as applicable provisions of the Massachusetts General Laws, provide that no action required or permitted to be taken at any annual or special meeting of our shareholders may be taken without a meeting, unless the unanimous consent of shareholders entitled to vote on the matter is obtained. These provisions may diminish the likelihood that a potential acquiror would make an offer for our common stock or that there would otherwise be a change in control of our company.

Table of Contents

Massachusetts Anti-Takeover Laws

We are subject to the provisions of Chapter 110F of the Massachusetts General Laws, an anti-takeover law. In general, this statute prohibits a publicly-held Massachusetts corporation with sufficient ties to Massachusetts from engaging in a business combination with an interested shareholder for a period of three years after the date of the transaction in which the person becomes an interested shareholder, unless either (1) the interested shareholder obtains the approval of the board of directors prior to becoming an interested shareholder, (2) the interested shareholder acquires 90% of the outstanding voting stock of the corporation (excluding shares held by certain affiliates of the corporation) at the time he becomes an interested shareholder or (3) the business combination is approved by both the board of directors and two-thirds of the outstanding voting stock of the corporation (excluding shares held by the interested shareholder) at an annual or special meeting of shareholders, but not by written consent. An interested shareholder is a person who, together with affiliates and associates, owns 5% or more of the corporation's outstanding voting stock or who as an affiliate at any time within the prior three years did own 5% or more of the corporation's voting stock. A business combination includes mergers, stock and asset sales and other transactions resulting in a financial benefit to the shareholder. We may at any time amend our articles of organization or bylaws, by vote of the holders of a majority of our voting stock, to elect not to be governed by Chapter 110F, but such an amendment would not be effective for 12 months and would not apply to a business combination with any person who became an interested shareholder prior to the date of the amendment.

We also are subject to the provisions of Chapter 110D of the Massachusetts General Laws, entitled Regulation of Control Share Acquisitions. This statute provides, in general, that any shareholder who acquires 20% or more of the outstanding voting stock of a corporation subject to this statute may not vote that stock unless the shareholders of the corporation so authorize. Voting control obtained by means of a revocable proxy will not trigger the implications of Chapter 110D of the Massachusetts General Laws. In addition, Chapter 110D permits a corporation to provide in its articles of organization or bylaws that the corporation may redeem (for fair value) all the shares thereafter acquired in a control share acquisition if voting rights for those shares were not authorized by the shareholders or if no control share acquisition statement was delivered. Our articles of organization include a provision which permits us to effect such redemptions.

Shareholder Rights Plan

We have adopted a Shareholder Rights Plan, the purpose of which is, among other things, to enhance the ability of our board of directors to protect the interests of our shareholders and to ensure that shareholders receive fair treatment in the event any coercive takeover attempt of Mercury is made in the future. The Shareholder Rights Plan could make it more difficult for a third party to acquire, or could discourage a third party from acquiring, Mercury or a large block of Mercury's common stock. The following summary description of the Shareholder Rights Plan does not purport to be complete and is qualified in its entirety by reference to our Shareholder Rights Plan, which has been previously filed with the SEC.

In connection with the adoption of the Shareholder Rights Plan, the board of directors declared a dividend distribution of one preferred stock purchase right, or a Right, for each outstanding share of common stock to shareholders of record as of the close of business on December 23, 2005. The Rights currently are not exercisable and are attached to and trade with the outstanding shares of common stock. Under the Shareholder Rights Plan, the Rights become exercisable if a person becomes an acquiring person by acquiring 15% or more of the outstanding shares of common stock or if a person commences a tender offer that would result in that person owning 15% or more of the common stock. If a person becomes an acquiring person, each holder of a Right (other than the acquiring person) would be entitled to purchase, at the then-current exercise price, such number of shares of our preferred stock which are equivalent to shares of common stock having a value of twice the exercise price of the Right. If we are acquired in a merger or other business combination transaction after any such event, each holder of a Right would then be entitled to purchase, at the then-current exercise price, shares of the acquiring company's common stock having a value of twice the exercise price of the Right.

Transfer Agent

The transfer agent and registrar for our common stock is Computershare Investor Services.

Table of Contents

Description of Warrants

We have no warrants outstanding. We may issue warrants for the purchase of preferred stock or common stock. Warrants may be issued independently, together with any other securities offered by any prospectus supplement or through a dividend or other distribution to our stockholders and may be attached to or separate from such securities. We may issue warrants under a warrant agreement to be entered into between us and a warrant agent. We will name any warrant agent in the applicable prospectus supplement. The warrant agent will act solely as our agent in connection with the warrants of a particular series and will not assume any obligation or relationship of agency or trust for or with any holders or beneficial owners of warrants.

The following is a description of the general terms and provisions of any warrants we may issue and may not contain all the information that is important to you. You can access complete information by referring to the applicable prospectus supplement. In the applicable prospectus supplement, we will describe the terms of the warrants and applicable warrant agreement, including, where applicable, the following:

- n the title of such warrants;
- n the aggregate number of warrants offered and the aggregate number of warrants outstanding as of the most practicable date;
- n the price or prices at which we will issue the warrants;
- n the designation, number and terms of the preferred stock or common stock that can be purchased upon exercise of the warrants and the procedures and conditions relating to the exercise of the warrants;
- n the designation and terms of the other securities, if any, with which the warrants are issued and the number of warrants issued with each of those securities;
- n the date, if any, on and after which the warrants and the related preferred stock or common stock, if any, will be separately transferable;
- n the price at which each share of preferred stock or common stock that can be purchased upon exercise of such warrants may be purchased;
- n the date on which the right to exercise the warrants shall commence and the date on which such right shall expire;
- n the minimum or maximum amount of such warrants which may be exercised at any one time;
- n whether the warrants represented by warrant certificates will be issued in registered or bearer form, and, if registered, where they may be transferred and registered;
- n information with respect to any book-entry procedures;
- n a discussion of applicable United States federal income tax consequences;

- n redemption or call provisions of the debt warrants, if any; and
- n any other terms of such warrants, including terms and additional rights, preferences, privileges, procedures and limitations relating to the transferability, exchange and exercise of such warrants.

Table of Contents

Description of Units

This section outlines some of the provisions of the units and the unit agreements. This information may not be complete in all respects and is qualified entirely by reference to the unit agreement with respect to the units of any particular series. The specific terms of any series of units will be described in the applicable prospectus supplement. If so described in a particular supplement, the specific terms of any series of units may differ from the general description of terms presented below.

We may issue units comprised of shares of preferred stock, shares of common stock, warrants and other securities in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

The applicable prospectus supplement may describe:

- n the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- n any provisions of the governing unit agreement;
- n the price or prices at which such units will be issued;
- n the applicable U.S. federal income tax considerations relating to the units;
- n any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- n any other terms of the units and of the securities comprising the units.

The provisions described in this section, as well as those described under **Description of Preferred Stock**, **Description of Common Stock** and **Description of Warrants** will apply to the securities included in each unit, to the extent relevant.

Issuance in Series

We may issue units in such amounts and in as many distinct series as we wish. This section summarizes terms of the units that apply generally to all series. Most of the financial and other specific terms of your series will be described in the applicable prospectus supplement.

Unit Agreements

We will issue the units under one or more unit agreements to be entered into between us and a bank or other financial institution, as unit agent. We may add, replace or terminate unit agents from time to time. We will identify the unit agreement under which each series of units will be issued and the unit agent under that agreement in the applicable prospectus supplement.

The following provisions will generally apply to all unit agreements unless otherwise stated in the applicable prospectus supplement.

Modification Without Consent

We and the applicable unit agent may amend any unit or unit agreement without the consent of any holder:

- n to cure any ambiguity; any provisions of the governing unit agreement that differ from those described below;
- n to correct or supplement any defective or inconsistent provision; or
- n to make any other change that we believe is necessary or desirable and will not adversely affect the interests of the affected holders in any material respect.

Table of Contents

We do not need any approval to make changes that affect only units to be issued after the changes take effect. We may also make changes that do not adversely affect a particular unit in any material respect, even if they adversely affect other units in a material respect. In those cases, we do not need to obtain the approval of the holder of the unaffected unit; we need only obtain any required approvals from the holders of the affected units.

Modification With Consent

We may not amend any particular unit or a unit agreement with respect to any particular unit unless we obtain the consent of the holder of that unit, if the amendment would:

- n impair any right of the holder to exercise or enforce any right under a security included in the unit if the terms of that security require the consent of the holder to any changes that would impair the exercise or enforcement of that right; or
 - n reduce the percentage of outstanding units or any series or class the consent of whose holders is required to amend that series or class, or the applicable unit agreement with respect to that series or class, as described below.
- Any other change to a particular unit agreement and the units issued under that agreement would require the following approval:

- n If the change affects only the units of a particular series issued under that agreement, the change must be approved by the holders of a majority of the outstanding units of that series; or
- n If the change affects the units of more than one series issued under that agreement, it must be approved by the holders of a majority of all outstanding units of all series affected by the change, with the units of all the affected series voting together as one class for this purpose. These provisions regarding changes with majority approval also apply to changes affecting any securities issued under a unit agreement, as the governing document.

In each case, the required approval must be given by written consent.

Unit Agreements Will Not Be Qualified Under Trust Indenture Act

No unit agreement will be qualified as an indenture, and no unit agent will be required to qualify as a trustee, under the Trust Indenture Act. Therefore, holders of units issued under unit agreements will not have the protections of the Trust Indenture Act with respect to their units.

Mergers and Similar Transactions Permitted; No Restrictive Covenants or Events of Default

The unit agreements will not restrict our ability to merge or consolidate with, or sell our assets to, another corporation or other entity or to engage in any other transactions. If at any time we merge or consolidate with, or sell our assets substantially as an entirety to, another corporation or other entity, the successor entity will succeed to and assume our obligations under the unit agreements. We will then be relieved of any further obligation under these agreements.

The unit agreements will not include any restrictions on our ability to put liens on our assets, including our interests in our subsidiaries, nor will they restrict our ability to sell our assets. The unit agreements also will not provide for any events of default or remedies upon the occurrence of any events of default.

Governing Law

The unit agreements and the units will be governed by Massachusetts law.

Table of Contents

Form, Exchange and Transfer

We will issue each unit in global i.e., book-entry form only. Units in book-entry form will be represented by a global security registered in the name of a depository, which will be the holder of all the units represented by the global security. Those who own beneficial interests in a unit will do so through participants in the depository's system, and the rights of these indirect owners will be governed solely by the applicable procedures of the depository and its participants. We will describe book-entry securities, and other terms regarding the issuance and registration of the units in the applicable prospectus supplement.

Each unit and all securities comprising the unit will be issued in the same form.

If we issue any units in registered, non-global form, the following will apply to them.

The units will be issued in the denominations stated in the applicable prospectus supplement. Holders may exchange their units for units of smaller denominations or combined into fewer units of larger denominations, as long as the total amount is not changed.

- n Holders may exchange or transfer their units at the office of the unit agent. Holders may also replace lost, stolen, destroyed or mutilated units at that office. We may appoint another entity to perform these functions or perform them ourselves.
- n Holders will not be required to pay a service charge to transfer or exchange their units, but they may be required to pay for any tax or other governmental charge associated with the transfer or exchange. The transfer or exchange, and any replacement, will be made only if our transfer agent is satisfied with the holder's proof of legal ownership. The transfer agent may also require an indemnity before replacing any units.
- n If we have the right to redeem, accelerate or settle any units before their maturity, and we exercise our right as to less than all those units or other securities, we may block the exchange or transfer of those units during the period beginning 15 days before the day we mail the notice of exercise and ending on the day of that mailing, in order to freeze the list of holders to prepare the mailing. We may also refuse to register transfers of or exchange any unit selected for early settlement, except that we will continue to permit transfers and exchanges of the unsettled portion of any unit being partially settled. We may also block the transfer or exchange of any unit in this manner if the unit includes securities that are or may be selected for early settlement.

Only the depository will be entitled to transfer or exchange a unit in global form, since it will be the sole holder of the unit.

Payments and Notices

In making payments and giving notices with respect to our units, we will follow the procedures as described in the applicable prospectus supplement.

Table of Contents

How We Plan to Sell the Securities

We may sell the securities in any one or more of the following methods from time to time:

- n directly to investors, directly to agents, or to investors through agents;
- n through underwriting syndicates led by one or more managing underwriters, or through one or more underwriters acting alone, for resale to the public or investors;
- n purchases by a broker or dealer as principal and resale by such broker or dealer for its own account;
- n through a block trade (which may involve crosses) in which the broker or dealer so engaged will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- n ordinary brokerage transactions and transactions in which the broker solicits purchasers;
- n in at the market offerings, within the meaning of Rule 415(a)(4) of the Securities Act, to or through a market maker or into an existing trading market, on an exchange or otherwise;
- n transactions not involving market makers or established trading markets, including direct sales or privately negotiated transactions;
- n exchange distributions and/or secondary distributions;
- n by delayed delivery contracts or by remarketing firms;
- n transactions in options, swaps or other derivatives that may or may not be listed on an exchange; or
- n through a combination of any such methods of sale.

The distribution of the securities may be effected from time to time in one or more transactions:

- n at a fixed price or prices, which may be changed;
- n at market prices prevailing at the time of sale;
- n at prices related to such prevailing market prices; or

n at negotiated prices.

Any of the prices may represent a discount from the prevailing market prices.

Any underwritten offering may be on a best efforts or a firm commitment basis. If underwriters are used in the sale, the securities acquired by the underwriters will be for their own account. The underwriters may resell the securities in one or more transactions, including without limitation negotiated transactions, at a fixed public offering price or at a varying price determined at the time of sale. The obligations, if any, of the underwriter to purchase any securities will be subject to certain conditions. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities if any are purchased, other than securities covered by any over-allotment option. Any public offering price and any discounts or concessions allowed, reallocated or paid to dealers may be changed from time to time.

If a dealer is used in an offering of securities, we may sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of sale.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may also sell securities directly to one or more purchasers without using underwriters, dealers or agents.

Table of Contents

We may also make direct sales through subscription rights distributed to our stockholders on a pro rata basis, which may or may not be transferable. In any distribution of subscription rights to stockholders, if all of the underlying securities are not subscribed for, we may then sell the unsubscribed securities directly to third parties or may engage the services of one or more underwriters, dealers or agents, including standby underwriters, to sell the unsubscribed securities to third parties.

In the sale of the securities, underwriters, dealers or agents may receive compensation from us or from purchasers of the securities, for whom they may act as agents, in the form of discounts, concessions or commissions. Underwriters may sell the securities to or through dealers, and such dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for whom they may act as agents. Underwriters, dealers and agents that participate in the distribution of the securities may be deemed to be underwriters under the Securities Act and any discounts or commissions they receive from us and any profit on the resale of securities they realize may be deemed to be underwriting discounts and commissions under the Securities Act. The applicable prospectus supplement will, where applicable:

- n identify any such underwriter or agent;

- n describe any compensation in the form of discounts, concessions, commissions or otherwise received from us by each of such underwriter, dealer or agent and in the aggregate to all underwriters, dealers and agents;

- n identify the purchase price and proceeds from such sale;

- n identify the amounts underwritten;

- n identify the nature of the underwriter's obligation to take the securities;

- n identify any over-allotment option under which the underwriters may purchase additional securities from us; and

- n identify any quotation systems or securities exchanges on which the securities may be quoted or listed.

Unless otherwise specified in the related prospectus supplement, each series of securities will be a new issue with no established trading market, other than the common stock, which is listed on the NASDAQ Global Select Market. Any common stock sold pursuant to a prospectus supplement will be listed on the NASDAQ Global Select Market, subject to applicable notices. We may elect to apply for quotation or listing of any other class or series of our securities, on a quotation system or an exchange but we are not obligated to do so. It is possible that one or more underwriters may make a market in a class or series of our securities, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice. Therefore, no assurance can be given as to the liquidity of, or the trading market for, any other class or series of our securities.

In connection with an offering, an underwriter may purchase and sell securities in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of securities than they are required to purchase in the offering. Covered short sales are sales made in an amount not greater than the underwriters' option to purchase additional securities, if any, from us in the offering. If the underwriters have an over-allotment option to purchase additional securities from us, the underwriters may close out any covered short position by either exercising their over-allotment option or purchasing securities in the open market. In determining the source of securities to close out the covered short position, the underwriters may consider, among other things, the price of securities available for purchase in the open market as compared to the price at which they may purchase securities through the over-allotment option. Naked short sales are any sales in excess of such option or where the underwriters do not have an over-allotment option. The underwriters must close out any naked short position by purchasing securities in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase in the offering.

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

Accordingly, to cover these short sales positions or to otherwise stabilize or maintain the price of the securities, the underwriters may bid for or purchase securities in the open market and may impose penalty bids. If penalty bids are imposed, selling concessions allowed to syndicate members or other broker-dealers participating in the offering are reclaimed if securities previously distributed in the offering are repurchased, whether in connection with stabilization transactions or otherwise. The effect of these transactions may be to stabilize or maintain the market price of the

Table of Contents

securities at a level above that which might otherwise prevail in the open market. The impositions of a penalty bid may also affect the price of the securities to the extent that it discourages resale of the securities. The magnitude or effect of any stabilization or other transactions is uncertain. These transactions may be effected on the NASDAQ Global Select Market or otherwise and, if commenced, may be discontinued at any time.

We do not make any representation or prediction as to the direction or magnitude of any effect that the transactions described above might have on the price of the securities. In addition, we do not make any representation that underwriters will engage in such transactions or that such transactions, once commenced, will not be discontinued without notice at any time.

Under agreements into which we may enter, underwriters, dealers and agents who participate in the distribution of the securities may be entitled to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or contribution from us to payments which the underwriters, dealers or agents may be required to make.

Underwriters, dealers and agents may engage in transactions with us or perform services for us in the ordinary course of business.

If indicated in the applicable prospectus supplement, securities may also be offered or sold by a remarketing firm in connection with a remarketing arrangement contemplated by the terms of the securities. Remarketing firms may act as principals for their own accounts or as agents. The applicable prospectus supplement will identify any remarketing firm and the terms of its agreement, if any, with us. It will also describe the remarketing firms compensation. Remarketing firms may be deemed to be underwriters in connection with the remarketing of the securities.

If indicated in the applicable prospectus supplement, we will authorize underwriters, dealers or other persons acting as our agents to solicit offers by particular institutions to purchase securities from us at the public offering price set forth in such prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on such future date or dates stated in such prospectus supplement. Each delayed delivery contract will be for an amount no less than, and the aggregate principal amounts of securities sold under delayed delivery contracts shall be not less nor more than, the respective amounts stated in the applicable prospectus supplement. Institutions with which such delayed delivery contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and others, but will in all cases be subject to our approval. The obligations of any purchaser under any such contract will be subject to the conditions that (1) the purchase of the securities shall not at the time of delivery be prohibited under the laws of any jurisdiction in the United States to which the purchaser is subject, and (2) if the securities are being sold to underwriters, we shall have sold to the underwriters the total principal amount of the securities less the principal amount thereof covered by the delayed delivery contracts. The underwriters and such other agents will not have any responsibility in respect of the validity or performance of such delayed delivery contracts.

To comply with applicable state securities laws, the securities offered by this prospectus will be sold, if necessary, in such jurisdictions only through registered or licensed brokers or dealers. In addition, securities may not be sold in some states unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Table of Contents

Information Incorporated by Reference

The SEC allows us to incorporate by reference the information and reports we file with it, which means that we can disclose important information to you by referring you to these documents. Our SEC file number is 0-23599. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede the information already incorporated by reference. We are incorporating by reference the documents listed below, which we have already filed with the SEC, and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, except as to any portion of any future report or document that is not deemed filed under such provisions, until we sell all of the securities:

- n Annual Report on Form 10-K for the year ended June 30, 2008;
- n Quarterly Report on Form 10-Q for the quarter ended September 30, 2008;
- n Quarterly Report on Form 10-Q for the quarter ended December 31, 2008;
- n Portions of our Proxy Statement filed with the SEC on October 17, 2008 that have been incorporated by reference into our Annual Report on Form 10-K;
- n Current Reports on Form 8-K dated July 30, 2008 (accepted at 17:25:04), September 18, 2008, October 24, 2008, November 20, 2008, January 6, 2009, January 28, 2009 (accepted at 07:17:18), February 2, 2009, February 4, 2009 and April 24, 2009;
- n The description of our common stock contained in our registration statement on Form 8-A, which was filed on January 7, 1998, including any amendment or report filed for the purpose of updating such description; and
- n The description of our preferred stock purchase rights contained in our registration statement on Form 8-A, which was filed on December 15, 2005, including any amendment or report filed for the purpose of updating such description.

Upon request, we will provide, without charge, to each person to whom a copy of this prospectus is delivered a copy of the documents incorporated by reference into this prospectus. You may request a copy of these filings, and any exhibits we have specifically incorporated by reference as an exhibit in this prospectus, at no cost by writing or telephoning us at the following address:

Mercury Computer Systems, Inc.

201 Riverneck Road

Chelmsford, Massachusetts 01824

(978) 256-1300

Attention: Secretary

This prospectus is part of a registration statement we filed with the SEC. We have incorporated exhibits into this registration statement. You should read the exhibits carefully for provisions that may be important to you.

You should rely only on the information incorporated by reference or provided in this prospectus or any prospectus supplement. We have not authorized anyone to provide you with different information. We are not making an offer of these securities in any state where the offer is not

Edgar Filing: MERCURY COMPUTER SYSTEMS INC - Form 424B5

permitted. You should not assume that the information in this prospectus or in the documents incorporated by reference is accurate as of any date other than the date on the front of this prospectus or those documents.

Table of Contents

Where You Can Find More Information

We are subject to the information requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and in accordance with the Exchange Act, file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room. These documents also may be accessed through the SEC's electronic data gathering, analysis and retrieval system, or EDGAR, via electronic means, including the SEC's home page on the Internet (www.sec.gov).

We have the authority to designate and issue more than one class or series of stock having various preferences, conversion and other rights, voting powers, restrictions, limitations as to dividends, qualifications, and terms and conditions of redemption. See Description of Preferred Stock and Description of Common Stock. We will furnish a full statement of the relative rights and preferences of each class or series of our stock which has been so designated and any restrictions on the ownership or transfer of our stock to any stockholder upon request and without charge. Written requests for such copies should be directed to Mercury Computer Systems, Inc., 201 Riverneck Road, Chelmsford, Massachusetts 01824, Attention: Secretary. Our telephone number is (978) 256-1300. Our website is located at www.mc.com. Information contained on our website is not incorporated by reference into this prospectus and, therefore, is not part of this prospectus or any accompanying prospectus supplement.

Experts

The consolidated financial statements and schedule of Mercury Computer Systems, Inc. as of June 30, 2008 and 2007, and for each of the years in the three-year period ended June 30, 2008, have been incorporated by reference herein in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing. The audit report covering the June 30, 2008 financial statements refers to a change in accounting for share-based payments.

Legal Matters

Certain legal matters, including the legality of the securities offered, will be passed upon for us by Goodwin Procter LLP, Boston, Massachusetts.

Table of Contents

4,000,000 Shares

Mercury Computer Systems, Inc.

Common Stock

PROSPECTUS SUPPLEMENT

Joint Book-Running Managers

Jefferies

Lazard Capital Markets

Co-Managers

Gleacher & Company

Merriman Capital

Morgan Keegan

, 2011

