UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM 8-K

CURRENT REPORT

PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of report (Date of earliest event reported): January 17, 2012

Mercury Computer Systems, Inc.

(Exact Name of Registrant as Specified in Charter)

Massachusetts (State or Other Jurisdiction of Incorporation) 000-23599 (Commission File Number) 04-2741391 (IRS Employer Identification No.)

201 Riverneck Road, Chelmsford, Massachusetts 01824 (Address of Principal Executive Offices) (Zip Code)

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

Not Applicable

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

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

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

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

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

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

Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

(b) Retirement of Robert E. Hult as Senior Vice President, Chief Financial Officer, and Treasurer.

Effective as of the close of business on January 17, 2012, Robert E. Hult retired as Senior Vice President, Chief Financial Officer, and Treasurer of Mercury Computer Systems, Inc. ("Mercury"). Mr. Hult has agreed to be a part-time Mercury employee for a limited period to provide certain transition services following his retirement as Chief Financial Officer. Mr. Hult will receive a bi-weekly payment of \$3,929.04 and will continue to vest in his Mercury equity awards during the period that he provides such transition services.

(c) Appointment of Kevin M. Bisson as Senior Vice President, Chief Financial Officer, and Treasurer.

Effective as of the close of business on January 17, 2012, Mercury appointed Kevin M. Bisson as Senior Vice President, Chief Financial Officer, and Treasurer. Throughout his career, Mr. Bisson has held positions of increasing responsibility in corporate accounting and finance. Prior to assuming his position with Mercury, Mr. Bisson, age 50, had been Chief Financial Officer, Treasurer, Secretary, and Senior Vice President, Finance and Administration, at SeaChange International, Inc., a publicly-traded global multi-screen video software company. Mr. Bisson worked at SeaChange from March 2006 until January 2012. Prior to joining SeaChange, Mr. Bisson served from May 2003 until March 2006 as the Senior Vice President and Chief Financial Officer of American Superconductor Corporation, a publicly-traded energy technologies company. Mr. Bisson served from 2000 to 2003 as Vice President, Controller, and Treasurer for Axcelis Technologies, Inc., a publicly-traded semiconductor equipment manufacturing company. Prior to joining Axcelis Technologies, Mr. Bisson served for ten years in a number of financial capacities with United Technologies Corporation.

Mercury and Mr. Bisson entered into a letter agreement, a copy of which is attached as Exhibit 10.1 and is incorporated herein by reference. Under the letter agreement, Mr. Bisson is entitled to receive an annual base salary of \$310,000 and will participate in specified incentive programs and other benefits available to Mercury executives. The letter agreement provides that Mr. Bisson will receive a signing bonus in the amount of \$100,000. If within one year of joining Mercury he were to leave other than for "good reason" or be terminated for "cause", he would be required to pay back the hiring bonus.

If during Mr. Bisson's employment he should lose his job as a result of job elimination or for any reason other than "cause", or if he terminates his employment for "good reason", he is entitled to receive 12 months base salary, benefits continuation, and executive outplacement.

For the fiscal year ending June 30, 2012 (fiscal 2012), Mr. Bisson is eligible to earn an annual target bonus equal to 60% of base salary based upon the achievement of individual management-by-results objectives (25% weighting) and Mercury corporate financial goals (75% weighting). His target bonus for fiscal 2012 is prorated based on date of hire. Mr. Bisson is also eligible for an annual target bonus of up to 60% of base salary and an over-achievement award under Mercury's annual executive bonus plan for the fiscal year ending June 30, 2013 (fiscal 2013).

Mr. Bisson received a restricted stock award for 60,000 shares under Mercury's 2005 Stock Incentive Plan. The restricted shares award has a four year vesting schedule, with one fourth of the shares vesting on each anniversary of the grant date, provided Mr. Bisson remains employed by Mercury or one if its subsidiaries as of each such date.

Mr. Bisson is also eligible for a change-in-control severance agreement on Mercury's current form for non-CEO executives. The form of change-in-control severance agreement for non-CEO executives is filed as

2

Exhibit 10.9.2 to Mercury's Annual Report on Form 10-K for the fiscal year ended June 30, 2011 and is incorporated herein by reference. Pursuant to the changein-control severance agreement, Mr. Bisson is entitled to severance benefits if, within 18 months after a change in control of Mercury (or during a potential change in control period provided that a change in control takes place within 18 months thereafter), his employment is terminated (1) by Mercury other than for "cause" or disability or (2) by Mr. Bisson for "good reason."

Severance benefits include the following, in addition to the payment of any earned or accrued compensation for services previously rendered:

- a lump sum cash payment equal to one and one-half times (1.5x) the sum of his then current annualized base salary and bonus target under Mercury's annual executive bonus plan (excluding any over-achievement awards);
- payment of the cost of providing him with outplacement services up to a maximum of \$45,000; and
- payment of the cost of providing him with health and dental insurance up to 18 months following such termination on the same basis as though he had remained an active employee.
- In addition, if Mr. Bisson's employment is terminated within 18 months after a change in control (or during a potential change in control period provided that a change in control takes place within 18 months thereafter), vesting of all his then outstanding stock options and other stock-based awards immediately accelerates and all such awards become exercisable or non-forfeitable.

Payment of the above-described severance benefits is subject to Mr. Bisson releasing all claims against Mercury other than claims that arise from Mercury's obligations under the change-in-control severance agreement. In addition, if he is party to an employment agreement with Mercury providing for change in control payments or benefits, he will receive the benefits payable under the change-in-control severance agreement and not under the employment agreement.

The change-in-control severance agreement provides for a reduction of payments and benefits payable under the agreement to a level where Mr. Bisson would not be subject to the excise tax pursuant to section 4999 of the Internal Revenue Code, but only if such reduction would put him in a better after-tax position than if the payments and benefits were paid in full. In addition, the agreement provides for the payment by Mercury of his legal fees and expenses incurred in connection with good faith disputes under the agreement.

The change-in-control severance agreement continues in effect through June 30, 2014, subject to automatic one-year extensions thereafter unless notice is given of Mercury's or Mr. Bisson's intention not to extend the term of the agreement; provided, however, that the agreement continues in effect for not less than 18 months following a change in control that occurs during the term of the agreement. Except as otherwise provided in the change-in-control severance agreement, Mercury and Mr. Bisson may terminate his employment at any time.

Item 7.01 Regulation FD.

On January 17, 2012, Mercury issued a press release announcing the retirement of Robert E. Hult and the appointment of Kevin M. Bisson as Senior Vice President, Chief Financial Officer, and Treasurer. A copy of the press release is attached hereto as Exhibit 99.1 and incorporated by reference herein.

3

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.

Description

- Agreement, dated November 26, 2011, by and between Kevin M. Bisson and Mercury Computer Systems, Inc. 10.1
- 99.1 Press Release, dated January 17, 2012, of Mercury Computer Systems, Inc.

SIGNATURES

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

Dated: January 17, 2012

MERCURY COMPUTER SYSTEMS, INC.

By: <u>/s/ Gerald M. Haines II</u> Gerald M. Haines II Senior Vice President, Corporate Development

EXHIBIT INDEX

Description

- 10.1 Agreement, dated November 26, 2011, by and between Kevin M. Bisson and Mercury Computer Systems, Inc.
- 99.1 Press Release, dated January 17, 2012, of Mercury Computer Systems, Inc.

Exhibit No.



November 26, 2011

Kevin Bisson [address]

Dear Kevin,

On behalf of Mercury Computer Systems, Inc., we are pleased to offer you the position of Senior Vice President Chief Financial Officer, reporting to Mark Aslett, President and CEO. You will receive a bi-weekly salary of \$11,923.08. Based upon our current Annual Executive Bonus Plan, you will also be eligible to earn an annual target bonus equal to 60% of your base pay (\$186,000), based on the achievement of individual objectives (25% weighting) and Mercury Computer Systems financial goals (75% weighting). The target bonus is paid annually, generally in August and is pro-rated for FY12 based on date of hire. You will be eligible for a salary and equity review in FY 2013 along with the other members of the executive team. Any executive salary changes or equity awards are recommended by Mark and approved by the Compensation Committee based upon the FY individual performance as well as internal and external pay relationships.

In addition to your target bonus, you will be eligible to participate with other senior executives in an FY2013 Overachievement Award pool (commencing on July 1, 2012). Your target Over Achievement award is up to 60% of your base salary. This is currently based upon Mercury Computer Systems over achieving a budgeted financial target set by the Compensation Committee. This will be paid annually — 50% in cash generally in August and 50% to be paid out over a three year period of time.

You will also be able to receive a one-time hiring bonus of \$100,000.00 if you start employment on or about January 9, 2012 but no later than January 16, 2012. This hiring bonus will be payable on the first payroll cycle after your start date. If you are to voluntarily terminate employment within 12 months of receiving the hiring bonus, you will be required to pay it back.

In addition, you will be granted 60,000 shares of restricted stock. The shares will be granted on the 15th of the month following your date of hire. This stock grant will have a four year vesting schedule, with one fourth of the shares vesting on each anniversary of the grant date, provided that you remain employed by us or one of our subsidiaries as of each such date. Your restricted stock award will also be subject to the terms and conditions of Mercury's 2005 Stock Incentive Plan and an award agreement between you and us.

Contingent upon your acceptance of this offer, you will be eligible for a Change in Control Agreement that upon your and the companies signature will be in effect while you are employed with Mercury and subject to renewal as described in the current change in control document.

If during your employment following your date of hire you should lose your job as a result of job elimination for any reason other than Cause, or if you terminate your employment for Good Reason on your part, you will receive 12 months base pay, benefits continuation and executive outplacement.

"Cause" is defined to include: the willful and continued failure to perform substantially the duties and responsibilities of your position with Mercury after written demand or conviction by a court of competent jurisdiction for felony criminal conduct or a plea of nob contendere to a felony; or the willful engaging in fraud, dishonesty or other misconduct which is demonstrably and materially injurious to Mercury or our reputation, monetarily or otherwise. No act, or failure to act, on your part will be deemed "willful" unless committed or omitted by you in bad faith and without reasonable belief that your act or failure to act was in, or not opposed to, the best interest of Mercury.

Mercury Computer Systems, Inc. — 201 Riverneck Road — Chelmsford, MA 01824 V: (978) 256-1300 — F: (978) 256-3599 — www.mc.com



Challenges Drive Innovation™

"Good Reason" is defined to include: a material diminution in your responsibilities, authority or duties as in effect on the date of the acceptance or a material diminution in your annual base salary, except for across-the-board salary reductions based on our financial performance similarly affecting all or substantially all senior management employees of Mercury; or a material change in the geographic location at which you provide services to Mercury.

In addition to your salary, Mercury offers a comprehensive benefits package, which includes health, dental, short and long-term disability, life insurance, educational reimbursement, and a 401K plan. Our current policy provides for senior executives to receive an annual reimbursement of up to \$2,000 for financial planning/tax preparation

This offer is contingent upon your signing and returning to us this offer letter and the enclosed Mercury Confidentiality Agreement prior to your start date, and upon you providing references and a background check each satisfactory to Mercury. This entire offer is also contingent upon the approval of the Compensation Committee of Mercury's Board of Directors. If you have any questions or concerns relating to this document, they must be resolved prior to your start date and prior to the approval of the Compensation Committee.

Mercury is required to formally confirm the citizenship status of all new employees. On your first day, you will be required to provide proof of US citizenship (either passport or birth certificate) or your Green Card if you are a legal permanent resident of the U.S. If you are not a U.S. citizen or Green Card holder, please bring your passport and proof of U.S. employment eligibility. If your position requires access to classified information, you must be willing to be submitted for a security clearance. As a Federal contractor, Mercury is required to verify the employment eligibility of new employees using the government's electronic verification system after acceptance of this offer and within 3 days of date of hire. Successful verification is necessary to confirm work authorization and continued employment.

By signing this offer letter you acknowledge that you understand and agree to the following:

1. You are not under any contractual or other restriction that would prevent you from working for Mercury Computer Systems, Inc.;

2. All employment with Mercury Computer Systems, Inc. will be at will, with either party free to terminate the employment relationship any time;

3. You must comply with the Immigration Reform and Control Act of 1986. This law requires you to establish your identity and employment eligibility. In order to satisfy these requirements, you will be required to complete Section 1 of the enclosed Employment Verification Form and bring the documents identified in Section 2 on your first day of work.

Kevin, we all look forward to your joining the Mercury executive leadership team. Together we will be able to realize our goals and accomplish great things. Please sign one copy of this offer letter and return to me in the enclosed envelope no later than December 1, 2011.

Very truly yours,

/s/ Mark Aslett

Mark Aslett President and Chief Executive Officer Mercury Computer Systems, Inc.

12-4-11

Date

/s/ Kevin Bisson Accepted

Start Date

Mercury Computer Systems, Inc. — 201 Riverneck Road — Chelmsford, MA 01824 V: (978) 256-1300 — F: (978) 256-3599 — www.mc.com



News Release

FOR IMMEDIATE RELEASE

Mercury Computer Systems Names Kevin M. Bisson Chief Financial Officer

Mr. Bisson to replace retiring CFO Robert E. Hult

CHELMSFORD, Mass. – January 17, 2012 – Mercury Computer Systems, Inc. (NASDAQ: MRCY, www.mc.com), a trusted provider of commercially developed, application-ready ISR subsystems for defense prime contractors, announced that Kevin M. Bisson has joined the company as Senior Vice President, Chief Financial Officer and Treasurer. Mr. Bisson replaces Robert E. Hult, Mercury's Senior Vice President, Chief Financial Officer and Treasurer, who is retiring from that position effective the close of business on January 17, 2012. Mr. Hult has agreed to remain as a part-time employee for a limited period to assist with the transition of his responsibilities following his retirement as Chief Financial Officer.

"We are deeply appreciative of the commitment and exceptional service Bob provided Mercury during his 8- year tenure with the company, and while we will miss his contributions, we wish him the best in his retirement," said Mercury's President and Chief Executive Officer Mark Aslett. "At the same time, we are fortunate to welcome Kevin Bisson, whose breadth and depth of expertise in global corporate finance and acquisitions will be a tremendous asset."

Throughout his career, Mr. Bisson has held positions of increasing responsibility in corporate accounting and finance. Most recently, he was Senior Vice President, Chief Financial Officer and Treasurer for SeaChange International, Inc., a publicly-traded company that develops, manufactures and markets digital video systems and services to cable, telecommunications and broadcast television companies worldwide. Mr. Bisson's experience spans a diverse group of technology companies including American Superconductor Corporation, Axcelis Technologies and United Technologies Corporation.

201 Riverneck Road, Chelmsford, Massachusetts 01824-2820 U.S.A. — +1 978.256.1300 — www.mc.com — twitter: @MRCY

For more information, visit www.mc.com, or contact Mercury at 866.627.6951 or info@mc.com.

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

Mercury Computer Systems (www.mc.com, NASDAQ: MRCY) is a best-of-breed provider of open, commercially developed, application-ready, multi-INT subsystems for defense prime contractors. With more than 30 years of experience in embedded computing, superior domain expertise in radar, EW, EO/IR, C4I and sonar applications, and more than 300 successful program deployments including Aegis, Global Hawk and Predator, Mercury's Services and Systems Integration (SSI) team leads the industry in partnering with customers to design and integrate system-level solutions that minimize program risk, maximize application portability and accelerate customers' time to market.

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

Forward-Looking Safe Harbor Statement

This press release contains certain forward-looking statements, as that term is defined in the Private Securities Litigation Reform Act of 1995, including those relating to the transition in the Chief Financial Officer position described above. You can identify these statements by the use of the words "may," "will," "could," "should," "plans," "expects," "anticipates," "continue," "estimate," "project," "intend," "likely," "probable, "and similar expressions. These forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those projected or anticipated. Such risks and uncertainties include, but are not limited to, general economic and business conditions, including unforeseen weakness in the Company's markets, effects of continued geopolitical unrest and regional conflicts, competition, changes in technology and methods of marketing, delays in completing engineering and manufacturing programs, changes in customer order patterns, changes in product mix, continued success in technological advances and delivering technological innovations, continued funding of defense programs, the timing of such funding, changes in the U.S. Government's interpretation of federal procurement rules and regulations, market acceptance of the Company's products, shortages in components, production delays due to performance quality issues with outsourced components, inability to fully realize the expected benefits from acquisitions and divestitures or delays in realizing such benefits, challenges in integrating acquired businesses and achieving anticipated synergies, changes to export regulations, increases in tax rates, changes to generally accepted accounting principles, difficulties in retaining key employees and customers, unanticipated costs under fixed-price service and system integration engagements, and various other factors beyond our control. These risks and uncertainties also include such additional risk factors as are discussed in the Company's filings with the U.S. Securities and Exchange Commission, including its Annual Report on Form 10-K for the fiscal year ended June 30, 2011. The Company cautions readers not to place undue reliance upon any such forward-looking statements, which speak only as of the date made. The Company undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made.

###

Contact: Robert McGrail, Director of Corporate Communications Mercury Computer Systems, Inc. 978.967.1366 / rmcgrail@mc.com

Challenges Drive Innovation and Echotek are registered trademarks and Application Ready Subsystem, ARS and Ensemble are trademarks of Mercury Computer Systems, Inc. Other product and company names mentioned may be trademarks and/or registered trademarks of their respective holders.

201 Riverneck Road, Chelmsford, Massachusetts 01824-2820 U.S.A. — +1 978.256.1300 — www.mc.com — twitter: @MRCY