

MERCURY COMPUTER SYSTEMS INC  
 Form 5  
 August 14, 2008

**FORM 5**

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

OMB APPROVAL

OMB Number: 3235-0362  
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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).  
 Form 3 Holdings Reported Form 4 Transactions Reported

**ANNUAL STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person \*  
**BERTELLI JAMES R**  
 (Last) (First) (Middle)

2. Issuer Name and Ticker or Trading Symbol  
**MERCURY COMPUTER SYSTEMS INC [MRCY]**

3. Statement for Issuer's Fiscal Year Ended (Month/Day/Year)  
**09/19/2007**

4. If Amendment, Date Original Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer  
 (Check all applicable)  
 Director  10% Owner  
 Officer (give title below)  Other (specify below)  
 Non-Exec Chairman of the Board

6. Individual or Joint/Group Reporting  
 (check applicable line)

**HOLLIS, NH 03049**  
 (City) (State) (Zip)

Form Filed by One Reporting Person  
 Form Filed by More than One Reporting Person

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned at end of Issuer's Fiscal Year (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
				(A)	or	(D)	Price		
Common Stock	09/19/2007	^	G	250	D	\$ 0	691,798	D	^
Common Stock	03/17/2008	^	S4	14,200	D	\$ 4,6514	677,598	D	^
Common Stock	^	^	^	^	^	^	12,400 <sup>(1)</sup>	D	^

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 2270 (9-02)

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**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned**  
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Other
					(A) (D)	Date Exercisable Expiration Date	Title Amount or Number of Shares		

## Reporting Owners

Reporting Owner Name / Address	Relationships				Title
	Director	10% Owner	Officer	Other	
BERTELLI JAMES R 34 POWERS ROAD HOLLIS, NH 03049	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Non-Exec Chairman of the Board

## Signatures

Karl D. Noone,  
Attorney-in-fact

08/14/2008

\_\_Signature of Reporting Person Date

## Explanation of Responses:

- \* If the form is filed by more than one reporting person, see Instruction 4(b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) This reporting person disclaims beneficial ownership of these securities, and this report shall not be deemed an admission that the reporting person is beneficial owner of these securities for purposes of Section 16 or any other purposes.

Note: File three copies of this Form, one of which must be manually signed. If space provided is insufficient, see Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.