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OMB APPROVAL  
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U.S. SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 3

INITIAL STATEMENT OF 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(f) of the Investment Company Act of 1940

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1. Name and Address of Reporting Person

Bertelli, James R.

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(Last) (First) (Middle)

51 Green Heron Lane

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(Street)

Nashua, NH 03062

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(City) (State) (Zip)

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2. Date of Event Requiring Statement (Month/Day/Year)

1/29/98

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3. IRS or Social Security Number of Reporting Person (Voluntary)

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4. Issuer Name and Ticker or Trading Symbol

Mercury Computer Systems, Inc. MRCY

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5 Relationship of Reporting Person to Issuer  
(Check all applicable)

[ ] Director [ ] 10% Owner  
[ X ] Officer (give title below) [ ] Other (specify below)

President  
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6. If Amendment, Date of Original (Month/Year)

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Table I -- Non-Derivative Securities Beneficially Owned  
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1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr.5)
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Common Stock 419,800 D  
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Reminder: Report on a separate line for each class of securities beneficially  
owned directly or indirectly.

(Print or Type Responses)

FORM 3 (continued)

Table II -- Derivative Securities Beneficially Owned  
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 5)	7. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exer- cisable	Expira- tion Date	Title	Amount or Number of Shares			
Stock Option (right to buy)	(1)	7/30/06	Common	10,000	4.00	D	
Stock Option (right to buy)	(2)	7/30/06	Common	2,264	4.00	D	
Stock Option (right to buy)	(2)	7/30/06	Common	4,865	4.00	D	
Stock Option (right to buy)	(3)	12/2/06	Common	5,161	4.00	D	
Stock Option (right to buy)	(4)	9/8/07	Common	8,601	4.00	D	
Stock Option (right to buy)	(5)	10/20/08	Common	45,000	8.00	D	

Explanation of Responses:

- (1) The option to purchase 6,000 shares is exercisable. The remainder will vest in equal increments on July 30 of each of 1998, 1999.
- (2) 50% of the option is exercisable; 50% will vest on July 31, 1998.
- (3) 50% of the option is exercisable; 50% will vest on December 2, 1998.
- (4) The option to purchase 4,301 shares will vest on September 8, 1998.
- (5) The option to purchase 11,250 shares will vest on October 20, 1998. The remaining options will vest in equal increments on October 20 of each of 1999, 2000 and 2001.

/s/James R. Bertelli

1/29/98

\*\*Signature of Reporting Person

Date

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations.

See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space provided is insufficient. See Instruction 6 for procedure.

