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## FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

## STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940 OMB APPROVAL
OMB Number: 3235-0287
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hours per response: 0.5

1. Name and Address of Reporting Person*  FLOOD DOUGLAS  (Last) (First) (Middle)  4 CONSTITUTION DRIVE		rson*	2. Issuer Name and Ticker or Trading Symbol <u>MERCURY COMPUTER SYSTEMS INC</u> [ MRCY ]		tionship of Reporting Per all applicable) Director Officer (give title	son(s) to Issuer 10% Owner Other (specify			
		(Middle)	3. Date of Earliest Transaction (Month/Day/Year) 08/12/2008		below) VP, Corporate Dev	below) velopment			
(Street) SOUTHBO (City)	ROUGH MA (State)	01772 (Zip)	4. If Amendment, Date of Original Filed (Month/Day/Year)	6. Indiv Line) X	vidual or Joint/Group Filin Form filed by One Rep Form filed by More tha Person	orting Person			
		Table I - Non-Deriv	vative Securities Acquired, Disposed of, or Benefi	cially	Owned				
	Table 1 - Non-Derivative Occurrices Acquired, Disposed of, or Derichelary Owned								

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	Code (	Transaction Disposed Of (D) (Instr. 3, 4 and Code (Instr. 5)			5. Amount of Securities Beneficially Owned Following Reported	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)	
			Code	v	Amount	(A) or (D)	Price	Transaction(s) (Instr. 3 and 4)		(1150.4)
Common Stock	08/12/2008		F		145	D	\$7.99	20,583	D	

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) 6. Date Exercisable and Expiration Date (Month/Day/Year) 9. Number of 1. Title of 7. Title and 8. Price of Derivative 3. Transaction 3A. Deemed 5. Number 10. 11. Nature Derivative Security (Instr. 3) Conversion Execution Date Transaction Amount of derivative Ownership of Indirect Date (Month/Day/Year) of Derivative Code (Instr. 8) Securities Security (Instr. 5) or Exercise if anv Securities Form: Beneficial Beneficially Owned Price of Derivative (Month/Day/Year) Securities Underlying Direct (D) Ownership (Instr. 4) or Indirect (I) (Instr. 4) Acquired Derivative (A) or Disposed Following Reported Security Security (Instr. 3 and 4) of (D) (Instr. 3, 4 and 5) Transaction(s) (Instr. 4) Amount o Number Expiration Date of Code ν (A) (D) Exercisable Date Title Shares

Explanation of Responses:

## Karl D. Noone, Attorney-infact

08/13/2008

\*\* Signature of Reporting Person Date

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

\* 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).

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

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.