THIBAUD DIDIER M C

Form 4

August 20, 2010

FORM 4

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF

SECURITIES

OMB

3235-0287 Number:

OMB APPROVAL

January 31, Expires: 2005

Estimated average burden hours per

response... 0.5

if no longer subject to Section 16. Form 4 or

Check this box

Form 5 obligations may continue. See Instruction

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

(Print or Type Responses)

1(b).

(Last)

1. Name and Address of Reporting Person * THIBAUD DIDIER M C

(First)

(Street)

(Middle)

2. Issuer Name and Ticker or Trading Symbol

MERCURY COMPUTER SYSTEMS INC [MRCY]

3. Date of Earliest Transaction

(Month/Day/Year) 08/18/2010

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

5. Relationship of Reporting Person(s) to

Issuer

(Check all applicable)

Director 10% Owner X_ Officer (give title Other (specify below)

SVP and GM, ACS

6. Individual or Joint/Group Filing(Check

Applicable Line) _X_ Form filed by One Reporting Person Form filed by More than One Reporting

Person

CHELMSFORD, MA 01824

201 RIVERNECK ROAD

(City) (State) (Zip) Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned 1. Title of 2. Transaction Date 2A. Deemed 4. Securities Acquired 5. Amount of 7. Nature of Security (Month/Day/Year) Execution Date, if Transaction(A) or Disposed of (D) Securities Ownership Indirect (Instr. 3) Code (Instr. 3, 4 and 5) Beneficially Form: Direct Beneficial (Month/Day/Year) (Instr. 8) Owned (D) or Ownership Following Indirect (I) (Instr. 4) Reported (Instr. 4) (A) Transaction(s) (Instr. 3 and 4) Code V Amount (D) Price

Common 8,665 \$ 159,111 08/18/2010 S D D (1) Stock 11.012

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

Persons who respond to the collection of SEC 1474 information contained in this form are not (9-02)required to respond unless the form displays a currently valid OMB control number.

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

Edgar Filing: THIBAUD DIDIER M C - Form 4

| 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. onNumber of Derivative Securities Acquired (A) or Disposed of (D) | | ate | 7. Title a Amount of Underlying Securities (Instr. 3 a | of ng s | 8. Price of Derivative Security (Instr. 5) | 9. Nu Deriv Secur Bene Owne Follo Repo Trans (Instr |
|---|---|---|---|---|---|---------------------|--------------------|--|---------------|---|---|
| | | | | Code V | (Instr. 3, 4, and 5) (A) (D) | Date Exercisable | Expiration Date | or Title Nu of | umber | | |

Reporting Owners

Reporting Owner Name / Address Relationships

Director 10% Owner Officer Other

THIBAUD DIDIER M C 201 RIVERNECK ROAD CHELMSFORD, MA 01824

SVP and GM, ACS

Signatures

Robert E. Hult, Attorney-in-fact 08/20/2010

**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) The disposition of shares was to cover the required tax withholding triggered by the vesting of restricted stock.

Note: File three copies of this Form, one of which must be manually signed. If space 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.

Reporting Owners 2