

Washington, D.C. 20549

FORM 144

NOTICE OF PROPOSED SALE OF SECURITIES

PURSUANT TO RULE 144 UNDER THE SECURITIES ACT OF 1933

ATTENTION: Transmit for filing 3 copies of this form concurrently with either placing an order with a broker to execute sale or executing a sale directly with a market maker

1(a) NAME OF ISSUER (Please type or print) (b) IRS IDENT. NO.(c) S.E.C. FILE NO.

Mercury Computer Systems, Inc. 04-2741391

1(d) ADDRESS OF ISSUER STREET CITY STATE ZIP CODE (e) TELEPHONE NO.

199 Riverneck Road, Chelmsford, MA 01824 (978) 256-1300

2(a)NAME OF PERSON FOR WHOSE (b)SOCIAL SECURITY (c)RELATIONSHIP (d) ADDRESS STREET CITY STATE ZIP CODE
ACCOUNT THE SECURITIES NO. OR IRS IDENT. TO ISSUER
ARE TO BE SOLD NO.

James R. Bertelli President Chief Executive Officer 34 Powers Road Hollis NH 03049

INSTRUCTION: The person filing this notice should contact the issuer to obtain the I.R.S. Identification Number and the S.E.C. File Number.

3(a)	(b)	SEC USE ONLY	(c)	(d)	(e)	(f)	(g)
Title of the Class of Securities to be Sold	Name and Address of Each Broker Through Whom the Securities are to Offered or Each Market Maker who is Aquiring the Securities	Broker-Dealer File Number	Number of Shares or Other Units to be Sold (See instr. 3(c))	Aggregate Market Value See instr. 3(d)	Number of Shares or Other Units Outstanding (See instr. 3(e))	Approximate Date of Sale (See instr. 3(f)) (MO. DAY YR.)	Name of Each Securities Exchange (See instr. 3(g))
Common Stock	Morgan Stanley Dean Witter 3 Copley Place, Suite 100 Boston, MA 02116 Francis J. Dietrich		10,000	\$530,500	21.48mm	1/31/01	NASDAQ

INSTRUCTIONS

- Name of Issuer
 - Issuer's I.R.S. Identification Number
 - Issuer's S.E.C. number, if any
 - Issuer's address, including zip code
 - Issuer's telephone number, including area code
- Name of person for whose account the securities are to be sold
 - Such persons Social Security or I.R.S. Identification number
 - Such person's relationship to the issuer (e.g., officer, director, 10% stockholder, or member of immediate family of any of the foregoing)
 - Such person's address, including zip code
- Title of the class of securities to be sold
 - Name and address of each broker through whom the securities are intended to be sold
 - Number of shares or other units to be sold (if debt including securities, give the aggregate face amount)
 - Aggregate market value of the securities to be sold as of a specified date within 10 days prior to the filing of this notice
 - Number of shares or other units of the class outstanding, or if debt securities the face amount thereof outstanding, as shown by the most recent report or statement published by the issuer
 - Approximate date on which the securities are to be sold
 - Name of each securities exchange, if any, on which the securities are intended to be sold number

TABLE I - SECURITIES TO BE SOLD

Furnish the following information with respect to the acquisition of the securities to be sold and with respect to the payment of all or any part of the purchase price or other consideration therefor:

Title of the Class	Date You Acquired	Nature of Acquisition Transaction	Name of Person from Whom Acquired (If gift, also give date donor acquired)	Amount of Securities Acquired	Date of Payment	Nature of Payment
Common Stock	1/1/83	Founders stock	Mercury Computer Systems, Inc.	800,000	N/A	N/A

INSTRUCTIONS: 1. If the securities were purchased and full payment therefore was not made in cash at the time of purchase, explain in the table or in a note thereto the nature of the consideration given. If the consideration consisted of any note or other obligation, or if payment was made in installments describe the arrangement and state when the note or other obligation was discharged in full or the last installment paid.

2. If within two years after the acquisition of the securities the person for whose account they are to be sold had any short positions, put or other option to dispose of securities referred to in paragraph (d)(3) of Rule 144, furnish full information with respect thereto.

TABLE II - SECURITIES SOLD DURING THE PAST 3 MONTHS TABLE II

Furnish the following information as to all securities of the issuer sold during the past 3 months by the person for whose account the securities are to be sold.

Name and Address of Seller	Title of Securities Sold	Date of Sale	Amount of Securities	Gross Proceeds
James R. Bertelli 34 Powers Road Hollis, NH 03049	Mercury Computer Systems, Inc.	1/30/01	10,000	520,730.27

REMARKS:

INSTRUCTIONS:

See the definition of "person" in paragraph (a) of Rule 144. Information is to be given not only as to the person for whose account the securities are to be sold but also as to all other persons included in the definition. In addition, information shall be given as to sales by all persons whose sales are required by paragraph (e) of Rule 144 to be aggregated with sales for the account of the person filing this notice.

01/31/01
(DATE OF NOTICE)

The notice shall be signed by the person for whose account the securities are to be sold. At least one copy of the notice shall be manually signed. Any copies not manually signed shall bear typed or printed signatures.

ATTENTION: Intentional misstatements or omission of facts constitute Federal Criminal Violations (See 18 U.S.C. 1001).

ATTENTION:

The person for whose account the securities to which this notice relates are to be sold hereby represents by signing this notice that he does not know any material adverse information in regard to the current and prospective operations of the Issuer of the securities to be sold which has not been publicly disclosed.

/s/ James R. Bertelli by
Anthony J. Medaglia, Jr., atty
(SIGNATURE)