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

FORM 10-K/A

(Mark One)

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2002

OR

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____

Commission File Number 0-22233

ENDOCARDIAL SOLUTIONS, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

41-1724963

(I.R.S. Employer Identification No.)

**1350 Energy Lane, Suite 110,
St. Paul, MN**

(Address of principal executive offices)

55108

(Zip Code)

(651) 523-6900

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act: None

Securities registered pursuant to Section 12(g) of the Act:

Common Stock, par value \$.01 per share

Preferred Share Purchase Rights

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Act). Yes No

The aggregate market value of voting stock held by non-affiliates of the registrant as of June 28, 2002 (the last business day of the registrant's most recently completed second fiscal quarter) was approximately \$105,965,258 (based on the last sale price of such stock as quoted on The Nasdaq National Market (\$7.59) on such date).

As of March 24, 2003 the number of shares outstanding of the registrant's common stock, par value \$.01 per share, was 19,664,593.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement for its 2003 Annual Meeting of Stockholders to be held on May 21, 2003 are incorporated by reference into Part III of this Annual Report on Form 10-K (the "Form 10-K Report").

EXPLANATORY NOTE

Endocardial Solutions, Inc. hereby files Amendment No. 1 to its Annual Report on Form 10-K for the year ended December 31, 2002.

This Amendment is being filed to correct an error on the cover page. The correct disclosure is contained on the cover page of this Amendment as follows:

"As of March 24, 2003 the number of shares outstanding of the registrant's common stock, par value \$.01 per share, was 19,664,593."

(A number of 16,567,593 shares was originally reported in error).

There are no other changes to the Form 10-K for the year ended December 31, 2002.

SIGNATURE

Pursuant to the requirements of Rule 12b-15 of the Securities Exchange Act of 1934, the registrant has duly caused this Amendment No. 1 to its Form 10-K for the year ended December 31, 2002 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of St. Paul, Minnesota.

Date: April 10, 2003

ENDOCARDIAL SOLUTIONS, INC.

By _____ /s/ J. ROBERT PAULSON, JR.

J. Robert Paulson, Jr.,
Chief Financial Officer
(Principal Financial and Accounting Officer)

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EXPLANATORY NOTE

SIGNATURE

Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

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EXHIBIT 99.1

**Certification of Chief Executive Officer
Pursuant to
18 U.S.C. §1350,
As Adopted Pursuant To
Section 906 OF the Sarbanes-Oxley Act of 2002**

In connection with the Annual Report of Endocardial Solutions, Inc. Corporation (the "Company") on Form 10-K for the period ended December 31, 2002 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, James W. Bullock, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ JAMES W. BULLOCK

James W. Bullock
Chief Executive Officer
April 10, 2003

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EXHIBIT 99.2

**Certification of Chief Financial Officer
Pursuant to
18 U.S.C. §1350,
As Adopted Pursuant To
Section 906 OF the Sarbanes-Oxley Act of 2002**

In connection with the Annual Report of Endocardial Solutions, Inc. (the "Company") on Form 10-K for the period ended December 31, 2002 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, J. Robert Paulson, Jr., Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ J. ROBERT PAULSON, JR.

J. Robert Paulson, Jr.
Chief Financial Officer
April 10, 2003

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EXHIBIT 99.2

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