Cardiovascular Systems Inc Form SC 13G/A April 01, 2009

SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

SCHEDULE 13G/A (Rule 13d-102) (Amendment No. 1)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO RULES 13d-1(b), (c) AND (d) AND AMENDMENTS THERETO FILED PURSUANT TO RULE 13d-2(b)

CARDIOVASCULAR SYSTEMS, INC.
(Name of Issuer)
Common Stock, \$0.001 par value
(Title of Class of Securities)
141619106
(CUSIP Number)
February 28, 2009
(Date of Event Which Requires Filing of this Statement)
Check the appropriate box to designate the rule pursuant to which this Schedule is filed:
X Rule 13d-1(b) _ Rule 13d-1(c) _ Rule 13d-1(d)
*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, an for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.
The information required on the remainder of this cover page shall not be deeme to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).
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CUSIP No. 141619106 13G/A

1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)									
Maverick Capital, Ltd 75-2482446										
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) _ (b) _									
3	SEC USE ONLY									
4 CITIZENSHIP OR PLACE OF ORGANIZATION										
	Texas									
NUMBER OF SHARES BENEFICIALI OWNED BY EACH REPORTING PERSON WITE			5		SOLE VOTING POWER 2,183,152 (1)					
	LY				SHARED VOTING POWER 45,289(2)					
					SOLE DISPOSITIVE POWER 2,183,152 (1)					
			8		SHARED DISPOSITIVE POWER 45,289(2)					
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON									
	2,228,441 (1)(2)									
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*									
11	11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 15.3% (3)									
12	TYPE OF REPORTING PERSON*									
	IA									

- (1) Includes currently exercisable warrants to purchase 816,335 shares of Common Stock, \$0.001 par value.
- (2) Christina Wyskiel holds 45,289 stock options exercisable within 60 days for the benefit of Maverick Capital, Ltd's clients. Ms. Wyskiel is an employee of an affiliate of Maverick Capital, Ltd.
- (3) This Schedule 13G/A is being filed to correct the percent of class reported in the Schedule 13G filed by the Reporting Persons on March 10, 2009, which inadvertently reported a miscalculation of the percentage. This Schedule 13G/A does not reflect a change in the number of shares beneficially owned by the Reporting Persons.

CUSIP No.	141619	106			13G/A					
1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)									
	Maverick Capital Management, LLC - 75-2686461									
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) _ (b) _									
3	SEC USE ONLY									
4	CITIZENSHIP OR PLACE OF ORGANIZATION									
	Texas									
NUMBER OF SHARES BENEFICIALI OWNED BY EACH REPORTING		 	5		SOLE VOTING POWER 2,183,152 (1)					
	LY	 	6		SHARED VOTING POWER 45,289(2)					
		 	7		SOLE DISPOSITIVE POWER 2,183,152 (1)					
PERSON WITH		 	8		SHARED DISPOSITIVE POWER 45,289(2)					
9	AGGRE	GAT	E AM	IOUN	I BENEFICIALLY OWNED BY EACH REPORTING PERSON					
	2,228,441 (1)(2)									
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*									
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9									
	15.3% (3)									
12	TYPE OF REPORTING PERSON*									
	HC									

- (1) Includes currently exercisable warrants to purchase 816,335 shares of Common Stock, \$0.001 par value.
- (2) Christina Wyskiel holds 45,289 stock options exercisable within 60 days for the benefit of Maverick Capital, Ltd's clients. Ms. Wyskiel is an employee of an affiliate of Maverick Capital, Ltd.
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CUSIP No. 3	 141619	106		13G/	'A						
1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)										
	Lee S. Ainslie III										
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) _ (b) _										
3	SEC USE ONLY										
4	CITIZENSHIP OR PLACE OF ORGANIZATION										
	United States										
NUMBER OF	LY	•		VOTING POW 3,152 (1)	VER						
NUMBER OF SHARES BENEFICIALI		•	SHAR	ED VOTING E 89(2)	POWER						
OWNED BY EACH REPORTING PERSON WIT				DISPOSITIN 3,152 (1)	/E POWER						
			SHAR	ED DISPOSIT 89(2)	CIVE POWER						
9	AGGRE	GATE AMO	DUNT BEN	EFICIALLY (OWNED BY EA	CH REPORTING	PERSON				
	2,228,441 (1)(2)										
10		BOX IF		REGATE AMOU	JNT IN ROW	(9) EXCLUDES					
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9										
	15.3% (3)										
12	TYPE OF REPORTING PERSON*										
	НС										

- (1) Includes currently exercisable warrants to purchase 816,335 shares of Common Stock, \$0.001 par value.
- (2) Christina Wyskiel holds 45,289 stock options exercisable within 60 days for the benefit of Maverick Capital, Ltd's clients. Ms. Wyskiel is an employee of an affiliate of Maverick Capital, Ltd.
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Item 1(a) Name of Issuer.

Cardiovascular Systems, Inc.

Item 1(b) Address of Issuer's Principal Executive Offices.

651 Campus Drive St. Paul, Minnesota, 55112-3495

Item 2(a) Name of Person Filing.

This Schedule 13G (the "Schedule 13G") is being filed on behalf of each of the following persons (each, a "Reporting Person"):

- (i) Maverick Capital, Ltd.;
- (ii) Maverick Capital Management, LLC; and
- (iii) Lee S. Ainslie III ("Mr. Ainslie").

The Schedule 13G relates to Shares (as defined herein) held for the accounts of Maverick Capital, Ltd.'s clients.

Item 2(b) Address of Principal Business Office, or, if none, Residence.

The address of the principal business office of (i) Maverick Capital, Ltd. and Maverick Capital Management, LLC is 300 Crescent Court, 18th Floor, Dallas, Texas 75201, and (ii) Mr. Ainslie is 767 Fifth Avenue, 11th Floor, New York, New York 10153.

- Item 2(c) Citizenship or Place of Organization.
 - (i) Maverick Capital, Ltd. is a Texas limited partnership;
 - (ii) Maverick Capital Management, LLC is a Texas limited liability company; and
 - (iii) Mr. Ainslie is a citizen of the United States.
- Item 2(d) Title of Class of Securities.

Common Stock, \$0.001 par value (the "Shares").

Item 2(e) CUSIP Number.

141619106

- Item 3. If this statement is filed pursuant to ss.ss.240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:
 - (a) $|_|$ Broker or dealer registered under section 15 of the Act (15 U.S.C. 780).
 - (b) |_| Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).

- (c) $|_|$ Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d) |_| Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
- (e) |X| An investment advisor in accordance with ss.240.13d-1(b)(1)(ii)(E).
- (f) $|_|$ An employee benefit plan or endowment fund in accordance with ss.240.13d-1 (b) (1) (ii) (F).
- (g) |X| A parent holding company or control person in accordance with ss.240.13d-1 (b) (1) (ii) (G).
- (h) \mid A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813).
- (i) $|_|$ A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3).
- (j) $|_|$ Group, in accordance with ss.240.13d-1(b)(1)(ii)(J).
- Item 4 Ownership.

Ownership as of February 28, 2009 is incorporated by reference to items (5) - (9) and (11) of the cover page of the Reporting Person.

Maverick Capital, Ltd. is an investment adviser registered under Section 203 of the Investment Advisers Act of 1940 and, as such, may be deemed to have beneficial ownership of the Shares which are the subject of this filing through the investment discretion it exercises over its clients' accounts. Maverick Capital Management, LLC is the General Partner of Maverick Capital, Ltd. Mr. Ainslie is the manager of Maverick Capital Management, LLC and is granted sole investment discretion pursuant to Maverick Capital Management, LLC's regulations.

Item 5 Ownership of Five Percent or Less of a Class.

Not applicable.

Item 6 Ownership of More Than Five Percent on Behalf of Another Person.

Not applicable.

Item 7 Identification and Classification of the Subsidiary which Acquired the Security Being Reported On by the Parent Holding Company.

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Not applicable.

Item 8 Identification and Classification of Members of the Group.

Not applicable.

Item 9 Notice of Dissolution of Group.

Not applicable.

Item 10 Certification.

By signing below each of the Reporting Persons certifies that, to the best of such person's knowledge, and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: April 1, 2009 MAVERICK CAPITAL, LTD.

By: Maverick Capital Management, LLC,

Its General Partner

By: Lee S. Ainslie III, Manager

By: /s/ John T. McCafferty

John T. McCafferty

Under Power of Attorney
dated February 13, 2003

Date: April 1, 2009 MAVERICK CAPITAL MANAGEMENT, LLC

By: Lee S. Ainslie III, Manager

By: /s/ John T. McCafferty

John T. McCafferty

Under Power of Attorney
dated February 13, 2003

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Date: April 1, 2009 LEE S. AINSLIE III

By: /s/ John T. McCafferty

John T. McCafferty

Under Power of Attorney
dated February 13, 2003

EXHIBIT INDEX

A. Joint Filing Agreement, dated March 10, 2009, by and among Maverick Capital, Ltd., Maverick Capital Management, LLC, and Lee S. Ainslie III.

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Exhibit A

Joint Filing Agreement

The undersigned hereby agree that the statement on Schedule 13G with respect to the Common Stock, \$0.001 par value of Cardiovascular Systems, Inc., dated as of March 10, 2009, is, and any amendments thereto (including amendments on Schedule 13D) signed by each of the undersigned shall be, filed on behalf of each of us pursuant to and in accordance with the provisions of Rule 13d-1(k) under the Securities Exchange Act of 1934.

Date: March 10, 2009

MAVERICK CAPITAL, LTD.

By: Maverick Capital Management, LLC Its General Partner

By: Lee S. Ainslie III, Manager

By: /s/John T. McCafferty

John T. McCafferty Under Power of Attorney dated February 13, 2003

MAVERICK CAPITAL MANAGEMENT, LLC

By: Lee S. Ainslie III, Manager

By: /s/John T. McCafferty

John T. McCafferty Under Power of Attorney dated February 13, 2003

LEE S. AINSLIE III

By: /s/John T. McCafferty

John T. McCafferty Under Power of Attorney dated February 13, 2003