Cardiovascular Systems Inc Form SC 13G March 10, 2009

SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

SCHEDULE 13G (Rule 13d-102)

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, and 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 deemed 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

	Maveric	_							
2 C		Maverick Capital, Ltd 75-2482446							
	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) _ (b) _								
3 S	SEC USE ONLY								
4 C	4 CITIZENSHIP OR PLACE OF ORGANIZATION								
T	Cexas								
NIIMPED OF			SOLE VOTING POWER 2,183,152 (1)						
NUMBER OF SHARES BENEFICIALLY			SHARE 45,28	ED VOTING 39(2)	POWER				
OWNED BY EACH REPORTING				DISPOSITI 3,152 (1)	VE POWER				
PERSON WITH		8	SHARE	ED DISPOSI 39(2)	TIVE POW	ER			
9 A	AGGREGA'	TE AMO	 DUNT BENE	EFICIALLY	OWNED BY	EACH	REPORTI	ING PERSO	ON
2	2,228,4	41 (1)) (2)						
	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*								
11 P	PERCENT	OF C		RESENTED F	Y AMOUNT		 DW 9		
	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 16.2%								
12 T	TYPE OF REPORTING PERSON*								
I	IA								
(1) Includes Stock, \$0.00		_		ole warrar	ts to pu	rchase	e 816,33	35 shares	s of Common
(2) Christin the benefit affiliate of	of Mave	erick	Capital,	Ltd's cl	_				_
				2 of	10				
	1161910			130	;				
				100					

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I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)

	Maveri	.ck Cap	ital	Management, I	LLC - 75-26	86461			
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 WITH	 -	5	5 SOLE VOTING POWER 2,183,152 (1)						
	 			SHARED VOTING 45,289(2)	POWER				
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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	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9								
	16.2%								
12	TYPE OF REPORTING PERSON*								
HC									
(1) Include Stock, \$0.0				cisable warrar	nts to purc	hase 816 ,	,335 sha	res of Common	
	of Ma	verick	Cap	45,289 stock ital, Ltd's cl al, Ltd.					
				3 of	F 10				
CUSIP No. 1	 1416191 	.06		 130 	3				
1				G PERSONS ATION NO. OF F	ABOVE PERSO	NS (ENTI	ries onl	Y)	

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 SHARES BENEFICIALI OWNED BY EACH REPORTING PERSON WITH	5 SOLE VOTING POWER 2,183,152 (1)									
	6 SHARED VOTING POWER LY 45,289(2)									
	7 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	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9									
12	TYPE OF REPORTING PERSON*									
	es currently exercisable warrants to purchase 816,335 shares of Common 001 par value.									
the benefit	ina Wyskiel holds 45,289 stock options exercisable within 60 days for of Maverick Capital, Ltd's clients. Ms. Wyskiel is an employee of an of Maverick Capital, Ltd.									
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This Schedule 13G (the "Schedule 13G") is being filed on behalf of

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.

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

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- 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. 78o).
 - (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) $\mid _ \mid$ 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.

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: 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

Date: March 10, 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: March 10, 2009 LEE S. AINSLIE III

By: /s/ John T. McCafferty

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

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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