Cardiovascular Systems Inc Form SC 13G/A February 14, 2011

SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

SCHEDULE 13G/A

Under the Securities Exchange Act of 1934 (Amendment No 3)
CARDIOVASCULAR SYSTEMS, INC.
(Name of Issuer)
Common Stock, \$0.001 par value
(Title of Class of Securities)
141619106
(CUSIP Number)
December 31, 2010
(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 in 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 (the "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).
CUSIP No. 141619106 SCHEDULE 13G/A Page 2 of 10 Pages

2	Check the Appropriate Box if a Member of a Group (See Instructions) (a) _ (b) _						
3	SEC Use Only						
4	Citizenship or Place of Organization						
	Texas						
Number of Shares Beneficial Owned by Each Reporting Person With	5 1	Sole Voting Power 1,528,563 (1)					
		Shared Voting Power					
		Sole Dispositive Power 1,528,563 (1)					
		Shared Dispositive Power					
9	Aggregate Amount Beneficially Owned by Each Reporting Person						
	1,528,563 (1)						
10	Check Box if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)						
11	Percent of Class Represented by Amount in Row 9						
	9.6%						
12	Type of Reporting Person (See Instructions)						
	IA						
	es currently ex 001 par value	 ercisable warrants to purchas	e 161,747 shares of Common				
CUSIP No. 141619106		SCHEDULE 13G/A	Page 3 of 10 Pages				
1	1 Names of Reporting Persons						
	Maverick Capit	al Management, LLC - 75-26864	61				

2	Check the Appropriate Box if a Member of a Group (See Instructions) (a) $ _ $ (b) $ _ $						
3	SEC Use Only						
4	Citizenship or Place of Organization						
	Texas						
Number of Shares Beneficial Owned by Each Reporting Person With	5 Sole Voting Power 1,528,563 (1)						
	6 Shared Voting Power y 0						
	8 Shared Dispositive Power 0						
9	Aggregate Amount Beneficially Owned by Each Reporting Person 1,528,563 (1)						
10	Check Box if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)						
11	Percent of Class Represented by Amount in Row 9 9.6%						
12	Type of Reporting Person (See Instructions) HC						
	ides currently exercisable warrants to purchase 161,747 shares of ek, \$0.001 par value.						
CUSIP No.	41619106 SCHEDULE 13G/A Page 4 of 10 Page:						
1	Names of Reporting Persons						
	Lee S. Ainslie III						
2	Check the Appropriate Box if a Member of a Group (See Instructions) (a) _ (b) _						

3	SEC Use Only					
4	Citizenship or Place of Organization					
	United States					
Number of Shares Beneficiall Owned by Each Reporting Person With	_	5 		Sole Voting Power 1,528,563 (1)		
		6 	 	Shared Voting Power		
		7 		Sole Dispositive Power 1,528,563 (1)		
	1	8	 	Shared Dispositive Power		
9	Aggregate Amount Beneficially Owned by Each Reporting Person					
	1,528	3,563 (1)			
10	Check Box if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)					
11	Percent of Class Represented by Amount in Row 9					
	9.6%					
12	Type of Reporting Person (See Instructions)					
	НС					
(1) Inclu			-	exercisable warrants to purchase 161,747 shares of value.		
Item 1(a)	Nā	ame of	Issu	er:		
	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)	ii) Ma	veri	ck Capital, Ltd.; ck Capital Management, LLC; and 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:
 - (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).

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- (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) $|_|$ A non-U.S. institution in accordance with

ss.240.13d-1(b)(1)(ii)(J).

(k) |_| Group, in accordance with ss.240.13d-1(b)(1)(ii)(K).

If filing as a non-U.S. institution in accordance with ss.240.13d-1(b)(1)(ii)(J), please specify the type of institution:_____

Item 4 Ownership

Ownership as of December 31, 2010 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.

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Item 7 Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person

Not applicable.

Item8 Identification and Classification of Members of the Group

Not applicable.

Item9 Notice of Dissolution of Group

Not applicable.

Item10 Certifications

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.

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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: February 14, 2011 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: February 14, 2011 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

Date: February 14, 2011 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

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