UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 8-K

Current Report

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): September 12, 2006

Natus Medical Incorporated

(Exact name of registrant as specified in its charter)

000-33001

(Commission File Number)

Delaware (State or other jurisdiction 77-0154833 (I.R.S. Employer

of incorporation) 1501 Industrial Road

Identification No.)

San Carlos, CA 94070

(Address of principal executive offices, with zip code)

650-802-0400

(Registrant s telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (*see* General Instruction A.2. below):

- " Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- " Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- " Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- " Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 1.01. Entry into a Material Definitive Agreement.

The Company is a party to a Credit Agreement dated January 4, 2006 with Wells Fargo Bank under which it borrowed \$10 million to complete the acquisition of Bio-logic Systems Corp. in January 2006, and under which \$7.75 million in principal amount was outstanding at June 30, 2006. The loan is repayable over a four-year period.

On September 12, 2006, the Company and Wells Fargo Bank entered into the Third Amendment to the Credit Agreement primarily to modify certain terms and covenants in the agreement associated with the Company s planned acquisition of DELTAMED SA. The Company completed the acquisition of DELTAMED SA on September 12, 2006.

The Amendment is attached hereto as Exhibit 10.01.

Item 9.01. Financial Statements and Exhibits

(d) Exhibits

Exhibit	
Number	Description
10.01	Third Amendment to Credit Agreement dated January 4, 2006

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

NATUS MEDICAL INCORPORATED

(Registrant)

Dated: September 15, 2006

By: /s/ Steven J. Murphy
Steven J. Murphy

Vice President Finance and Chief Financial Officer

EXHIBIT INDEX

Exhibit

Number Description

10.01 Third Amendment to the Credit Agreement dated January 4, 2006