

FORM 12b-25
SEC FILE NUMBER
1- 9224
NOTIFICATION OF LATE FILING

CUSIP Number: 03875V107

- o Transition Report on Form 10-K
- o Transition Report on Form 20-F
- o Transition Report on Form 11-K
- o Transition Report on Form 10-Q
- o Transition Report on Form N-SAR

Read Instruction (on back page) Before Preparing Form. Please Print or Type.
Nothing in this form shall be construed to imply that the Commission has verified any information contained herein.

ARBIOS SYSTEMS, INC.

Full Name of Registrant:

Former Name if Applicable:

80 COMMERCE DR.

Address of Principal Executive Office (Street and Number):

ALLENDALE NJ 07401

City, State and Zip Code:

PART II - RULES 12b-25(b) AND (c)

If the subject report could not be filed without unreasonable effort or expense and the registrant seeks relief pursuant to Rule 12b-25(b), the following should be completed. (Check box if appropriate)

- (a) The reasons described in reasonable detail in Part III of this form could not be eliminated without unreasonable effort or expense;
- x (b) The subject annual report, semi-annual report, transition report on Form 10-K, 20-F, 11-K or Form N-SAR, or portion thereof will be filed on or before the 15th calendar day following the prescribed due date; or the subject quarterly report or transition report on Form 10-Q, or portion thereof will be filed on or before the fifth calendar day following the prescribed due date; and
- (c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.

PART III - NARRATIVE

State below in reasonable detail the reasons why the Form 10-K, 20-F, 11-K, 10-Q, or N-SAR, or the transition report or portion thereof, could not be filed within the prescribed time period.

Arbios Systems, Inc. (the "Company") could not complete the filing of its Annual Report on Form 10-K for the fiscal year ended December 31, 2009 due to a delay in obtaining and compiling information required to be included in the Company's Form 10-K, which delay could not be eliminated by the Company without unreasonable effort and expense. In accordance with Rule 12b-25 of the Securities Exchange Act of 1934, the Company will file its Form 10-K no later than the fifteenth calendar day following the prescribed due date.

PART IV - OTHER INFORMATION

(1) Name and telephone number of person to contact in regard to this notification:

| | | |
|-----------|-------------|--------------------|
| Thomas J. | (201) | 995-1919 |
| Fagan | | |
| (Name) | (Area Code) | (Telephone Number) |

(2) Have all other periodic reports required under Section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed? If the answer is no, identify report(s).

x Yes o No

(3) Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion thereof:

o Yes x No

If so: attach an explanation of the anticipated change, both narratively and quantitatively, and, if appropriate, state the reasons why a reasonable estimate of the results cannot be made.

Explanation Referred to in Part IV, Item (3) of Form 12b-25:

ARBIOS SYSTEMS, INC.

(Name of Registrant as Specified in Charter)

has caused this notification to be signed on its behalf by the undersigned hereunto duly authorized.

ARBIOS SYSTEMS, INC.

Date: March 31, 2010

By: /s/ Thomas J. Fagan
Name: Thomas J. Fagan
Title: Chief Executive Officer

ATTENTION

Intentional misstatements or omissions of fact constitute Federal Criminal Violations (See 18 U.S.C. 1001)
