



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

June 20, 2012

Via E-mail

David P. Vieau
Chief Executive Officer
A123 Systems, Inc.
321 Arsenal Street
Watertown, MA 02472

**Re: A123 Systems, Inc.
Registration Statement on Form S-3
Filed May 31, 2012
File No. 333-181778**

Dear Mr. Vieau:

We have limited our review of your registration statement to those issues we have addressed in our comment. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. Where you do not believe our comment applies to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to the comment, we may have additional comments.

Prospectus Summary, page 3

1. Please revise to highlight the reissuance of your auditor's report for the fiscal year ended December 31, 2011 that now includes an explanatory paragraph that there exists substantial doubt as to your ability to continue as a going concern. Also briefly discuss the circumstances that gave rise to the reissuance of the report and your current liquidity position including your present resources, the amount of cash currently used in your operations per month, and the length of time that your present resources will support your operations. Finally, please discuss your recent financing transactions, including the "additional sale option" arrangement described in your prospectus supplement filed on January 20, 2012, and explain the impact of these transactions on your ability to obtain additional financing and the terms on which you may be able to obtain such financing.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comment, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Please contact Joseph McCann at (202) 551-6262 or Mary Beth Breslin, Senior Attorney, at (202) 551-3625 with any questions.

Sincerely,

/s/ Mary Beth Breslin for

Amanda Ravitz
Assistant Director

cc (via email): Susan L. Mazur, Esq. – Latham & Watkins LLP