

Mail Stop 3561

December 6, 2006

Via U.S. Mail & Facsimile (858) 523-5450

Mr. Timothy Conver  
President and Chief Executive Officer  
AeroVironment, Inc.  
181 W. Huntington Drive, Suite 202  
Monrovia, CA 91016

**Re: AeroVironment, Inc.  
Amendment No. 2 to Registration Statement on Form S-1  
Filed November 29, 2006  
File No. 333-137658**

Dear Mr. Conver:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Our management, whose interests may not be aligned with yours, page 22

1. We note your revised disclosures in response to our prior comment 2 and again request that disclosure be amended to reflect that both prior and subsequent to the offering transaction, your executive officers will have the ability to control the vote on all matters requiring stockholder approval.

Selected Consolidated Financial Data, page 34

2. It appears as though the net income for the six months ended October 29, 2005 should be \$7,347 rather than \$7,328. Please revise.

Accounting for Stock-Based Awards, page 39

3. We do not believe it is appropriate to refer to the transactions involving the purchase and sale of shares among your directors and a trust affiliated with your

Chief Executive Officer as “arms-length” transactions. Please revise to eliminate the description of these transactions as “arms-length” transactions. The discussion on page F-19 of the Company’s financial statements should be similarly revised.

April 30, 2006 Financial Statements, page F-1

4. We note several changes to your financial statements in response to our prior comments 4 and 6. Please revise your financial statements to appropriately label as “restated” amounts that have been restated and include the disclosures required by paragraph 37 of APB 20 or paragraph 26 of SFAS 154 for the correction of an error.

Consolidated Statements of Stockholders’ Equity, page F-6

5. We note your response to our prior comment number 6. Please explain why only the repurchases made from General Motors during fiscal year ended April 30, 2004 and from George Ettenheim in fiscal year ended April 20, 2005 have been reflected as repurchases in your consolidated statements of shareholders’ equity for the periods. Your response should explain why the other repurchase transactions described in your response to our prior comment number 6 have not been reflected in your consolidated statements of shareholders’ equity.

Note 5. Stock-Based Compensation, page F-39

6. We note the disclosure indicating that the Company recognized share-based compensation expense of \$8,000 for options that vested during the six months ended October 28, 2006. We also note that the weighted average grant date fair value of options granted during the six months ended October 28, 2006 was determined to be \$28.85. Supplementally advise us of how the Company calculated or determined the \$8,000 of compensation expense that was recognized during the period. As part of your response, please indicate the vesting period for the 17,500 of options granted during this period. We may have further comment upon receipt of your response.
7. Also, please revise Note 5 to your interim financial statements to discuss the results of the valuation prepared by your independent valuation specialist.

\*\*\*\*\*

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover

Mr. Timothy Conver  
AeroVironment, Inc.  
December 6, 2006  
Page 3

letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

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 all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment decision. 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.

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. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Heather Tress at (202) 551-3624 or Linda Cvrkel at (202) 551-3813 if you have questions regarding comments on the financial statements and related matters. Please contact Joshua Ravitz at (202) 551-4817 or me at (202) 551-3755 with any other questions.

Sincerely,

Max A. Webb  
Assistant Director

cc: Via Facsimile (858) 523-5450  
Craig Garner, Esq.  
Michael Sullivan, Esq.  
Latham & Watkins, LLP