

Mail Stop 3561

April 22, 2009

Via U.S. Mail and Facsimile

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

RE: **AeroVironment, Inc.**
Form 10-K for the fiscal year ended April 30, 2008
Form 10-Q for the quarterly period ended January 31, 2009
Definitive Proxy Statement on Schedule 14A

File No. 001-33261

Dear Mr. Conver:

We have reviewed your response letter dated March 27, 2009 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.

We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-Q for the quarterly period ended January 31, 2009

Financial Statements

Note 6. Stock-Based Compensation, page 11

1. We note your response to our prior comment 2. Based on your disclosure in note 10 to your financial statements in Form 10-K for the fiscal year ended April 30, 2008, it appears that you granted 386,310 stock options as part of the 2006 plan during your fiscal year ended April 30, 2008 (after adopting SFAS No. 123(R)) of which 379,310 were outstanding at April 30, 2008. Also, we note that during the nine months period ended January 31, 2009 that approximately 20,100 of stock options related to the 2006 plan were exercised. In this regard, it would appear that the tax benefit from the exercise of the stock options issued after your adoption of SFAS No. 123(R) on May 1, 2006 should be presented as cash flows from financing activities, as required by paragraphs 19(e) of SFAS No. 95. In this regard, please provide us with the amount of tax benefit associated with the exercise of stock options that were issued after May 1, 2006 and your rationale for not presenting it as cash inflows from financing activities, as prescribed by paragraph 19(e) of SFAS No. 95. We may have further comment after receipt of your response.

Definitive Proxy Statement on Schedule 14A

Executive Performance Bonus Program, page 17

2. We note your response to prior comment 5; however, please either confirm that you will provide quantitative disclosure regarding the targets actually reached based on the specific financial and strategic goals for each executive officer, or provide us with a detailed explanation for your conclusion that such disclosure is not required because it would result in competitive harm and could be excluded under Instruction 4 to Item 402(b) of Regulation S-K. Also, please provide us with analysis supporting your belief that targets need only be disclosed “to the extent such information is material and would provide meaningful disclosure to the Company’s stockholders and would further the goal of providing a clear and concise description of the determination of achievement of such objectives and the bonus determination for the Company’s named executive officers”. Alternatively, please confirm that in future filings you will provide quantitative disclosure regarding the targets actually reached without this qualification.

Timothy E. Conver
AeroVironment, Inc.
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As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

Your response should be submitted in electronic form, under the label "corresp" with a copy to the staff.

You may contact Jeffrey Jaramillo at (202) 551-3212 if you have questions regarding comments on the financial statements and related matters. Please contact Michelle Lacko at (202) 551-3240 or me at (202) 551-3813 with any other questions.

Sincerely,

Linda Cvrkel
Branch Chief

Via facsimile: Stephen C. Wright, Chief Financial Officer
(626) 359-9628