

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

July 29, 2010

Mr. William J. Flynn President and Chief Executive Officer Atlas Air Worldwide Holdings, Inc. 2000 Westchester Avenue Purchase, New York 10577

Re: Atlas Air Worldwide Holdings, Inc.

Form 10-K for the Year Ended December 31, 2009

Filed February 25, 2010 File No. 001-16545

Dear Mr. Flynn:

We have reviewed your responses to the comments in our letter dated June 29, 2010 and have the following additional comments.

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply 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 filing and the information you provide in response to these comments, we may have additional comments.

Definitive Proxy Statement on Schedule 14A

Compensation Discussion and Analysis, page 18

Total Compensation, page 19

1. While we note your response to our prior comments 1 and 3, it appears that you are using the Towers Watson Data Services Report on Long-Term Incentives Policies and Practices in your compensation decisions. For guidance refer to Compliance and Disclosure Interpretation 118.05 of Regulation S-K. In future filings please list the companies to which you benchmark and disclose the degree to which the Compensation Committee considered such companies comparable to you or please advise. Refer to Item 402(b)(2)(xiv) of Regulation S-K.

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<u>Long-Term Equity Incentive Compensation, page 20</u>

2. While we note your response to our prior comment 2, your disclosure in the first full paragraph on page 23 appears to describe the types of performance targets you use to evaluate performance but does not appear to quantify these targets. Please confirm that in future filings you will quantify all company-wide performance targets or please provide us with your analysis for concluding that the disclosure of such targets is not required because it would result in competitive harm and such disclosure may be omitted pursuant to Instruction 4 to Item 402(b) of Regulation S-K. Refer to Item 402 of Regulation S-K.

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 Exchange Act of 1934 and all applicable Exchange 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.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please contact Tonya Bryan at 202-551-3601 or me at 202-551-3574 with any other questions.

Sincerely,

Julie F. Rizzo Attorney-Advisor