



DIVISION OF
CORPORATION FINANCE

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

June 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
File No. 001-16545**

Dear Flynn:

We have reviewed your filing and have the following comments. 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 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.

Form 10-K for the year ended December 31, 2009

Compensation Discussion and Analysis, page 18

Total Compensation, page 19

1. We note your disclosure in the second full paragraph on page 20 that the Compensation Committee set long-term incentive awards at the 75th percentile of comparable companies. 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.

Long-Term Equity Incentive Compensation, page 20

2. We note your disclosure in the first full paragraph on page 21 that performance-based restricted shares and units and performance-based cash awards vest only if preset financial targets are achieved. 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.

Long-Term Equity Incentive Compensation, page 22

3. We note your disclosure in the carryover paragraph starting on page 22 that the Compensation Committee established target awards at the 75th percentile. 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.

Compensation of Named Executive Officers, page 24

Summary Compensation Table for Fiscal 2009, page 24

4. We note that compensation information for Mr. Steen was only provided for 2008 and 2009 though the first full paragraph on page 25 states that Mr. Steen was named Senior Vice President and Chief Marketing Officer in April 2007. Please advise.

Item 2. Properties

Aircraft, page 24

5. We note that your table detailing number of aircraft presented here includes owned and leased aircraft exclusive of retired or parked aircraft. Please note that Item 102 of Regulation S-K requires you to state briefly the location and general character of materially important physical properties, and identify the industry segments as reported in the financial statements that use the properties described. Accordingly, in addition to the table currently presented, please include a table summarizing your fleet on a segment basis. Also, in a footnote to these tables, please disclose the number of aircraft that are parked or otherwise removed from service, and indicate whether such aircraft are owned or leased.

Item 7. Management's Discussion and Analysis

Business Overview, page 27

6. Based on the discussion of your results of operations, it appears you have experienced material changes in the size, composition and usage by segment of your fleet of aircraft. Accordingly, in order to give investors an overall view of these changes, we suggest you add

a table summarizing purchases of aircraft, consolidation of VIEs, the deconsolidation of Polar, aircraft parked or otherwise removed from service, and transfers between segments for all periods presented.

Liquidity and Capital Resources, page 45

7. Please revise your disclosure in the first paragraph of this section to include the amounts used for investing and financing activities. It appears your current disclosure inadvertently excluded the actual amounts of \$0.7 million and \$2.5 million, respectively. Also, please delete the reference to your equity offering since the proceeds from that offering were mostly offset by payments on long-term debt obligations, as discussed on page 46, and both items are included in the \$2.5 million used for financing activities.

Description of Our Debt Obligations, page 47

8. We note that EETCs were issued to finance the acquisition of a total of twelve 747-400F aircraft. However, on page 48, you indicate that fourteen of your twenty-eight operating aircraft are owned and leased through trusts established to provide, finance and lease aircraft. Please reconcile this apparent discrepancy.
9. We note the disclosure that you have historically reflected the debt obligations relating solely to owned EETC aircraft on your balance sheet, while the debt obligations related to the leased EETC aircraft have not been reflected on your balance sheet. In order to clarify how your fleet is financed, and whether or not such financing is reflected on your balance sheet, please add a table to summarize the financing associated with each of your aircraft. Since you use specific tail numbers in Note 9 to your financial statements, we suggest you use aircraft tail numbers in this table. Please present separately the different type of aircraft in a manner consistent with the table summarizing your fleet in Item 2 on page 24, and show all twenty-eight aircraft in the table. For leased aircraft, please indicate whether or not they were financed under your EETC transactions. If not, we suggest you include the name of the lessor. If there is no financing on a particular aircraft, so state.

Item 8. Financial Statements

Note 3 – DHL Investment, page 66

10. We note that, just before the Commencement Date, DHL notified you that it would exercise its contractual right to terminate the ACMI and related agreements covering the two supplemental 747-400 aircraft. Since this notification occurred at about the same time that you de-consolidated Polar, and assuming the two installment payments from DHL were reasonably assured of collection, tell us what consideration was given to adding the \$10.0 million one-time termination penalty to the gross proceeds used in the determination of your gain on issuance of subsidiary stock.

Form 10-Q for the quarterly period ended March 31, 2010

Note 3 – Long-term Investments, page 7

11. We note that, in February 2010, you purchased \$100.1 million in debt securities that represent investments in Pass-through Trust Certificates related to EETCs issued by Atlas in 1998, 1999 and 2000. Please tell us and clarify your disclosure with respect to whether or not your investment in the debt securities related to the six EETC financed aircraft that are currently owned by Atlas and reflected on your balance sheet. If related to these owned aircraft, tell us what consideration was given to derecognizing the associated liability pursuant to FASB ASC 405-20-40-1(a)(4).

Financial Overview and Business Developments, page 17

12. In the last paragraph of this section you disclose that your Titan subsidiary purchased a Boeing 757-200SF in March 2010. Please expand this disclosure to indicate how you funded this purchase. Also, please disclose the purchase price for this aircraft.

Liquidity and Capital Resources, page 22

13. In the second paragraph of this section, you state that you purchased \$100.1 million of debt securities related to EETCs issued by Atlas in 1998, 1999 and 2000. According to the disclosure in Note 3 to your interim financial statements, your purchase has essentially established the market price for these otherwise illiquid securities. Please expand your disclosure in MD&A to discuss management's reasons for this investment and whether or not you expect to liquidate this investment in connection with your upcoming purchases of new 747-8F aircraft.

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

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- 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.

You may contact Amy Geddes at 202-551-3304 or me at 202-551-3211 if you have questions regarding comments on the financial statements, related matters, or any other questions. Please contact Tonya Bryan at 202-551-3601 with any other questions.

Sincerely,

David R. Humphrey
Branch Chief