

Mail Stop 3561

May 18, 2007

Via U.S. Mail

Steven Santo
Chief Executive Officer
Avantair, Inc.
4311 General Howard Drive
Clearwater, FL 33762

**Re: Avantair, Inc.
Registration Statement on Form S-1
Filed April 23, 2007
File No. 333-142312**

Dear Mr. Santo,

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 supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

The purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects and welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

General

1. Please provide the disclosure required by Items 405, 406, 407 and 701 of Regulation S-K.
2. We note on the cover page that on April 19, 2007, the last reported sale price of your shares was \$4.44 per share. It appears that you may be subject to the Penny Stock Rule. Please refer to Rules 3a51-1, and 15g-1 to 15g-9 of the Exchange Act.

It does not appear to us that you are eligible to use incorporation by reference. See General Instructions VII of Form S-1. Please revise the registration statement to include all information required by Form S-1.

Registration Statement Cover Page

3. Please revise your fee table to delete the dollar sign under the column "Amount to be Registered."
4. Please add a column to the registration fee table to disclose the proposed maximum offering price per share of the common stock and the warrant.

Outside Back Cover Page of Prospectus

5. Please include the dealer prospectus delivery obligation language required by Item 502(b) of Regulation S-K.

Summary, page 1

General

6. Please expand this section to disclose that your independent auditor has issued a going concern opinion and disclose the amount of your net loss for the most recent audited and interim periods. Additionally, disclose the amount of your working capital deficit and the amount of your accumulated deficit. We believe this financial snapshot will provide a useful context to help investors interpret the rest of the summary.
7. We note your reference in this section and throughout the document to industry information provided by AvData and Business & Commercial Aviation. Please be advised that you must provide consents with respect to any statistics or other data provided that are not either attributed to the company or based on public information available for free or at a nominal cost. See Rule 436 of Regulation C. Revise throughout the document as appropriate.

Summary and Selected Consolidated Financial Data, pages 4 and 16

8. We note that your disclosure of balance sheet data is as of June 30, 2006 and 2005 and the interim period December 31, 2006. Please revise to include consolidated balance sheet data (i.e., total assets, long-term obligations, and stockholders' deficit) as of June 30, 2004. Also, although your disclosure on page 1 indicates that Avantair was incorporated in July 2003, your website at www.avantair.com appears to indicate that Avantair was founded and began operations in June 2002. Please tell us the date when Avantair first began operations. If that date is prior to

July 1, 2003, please include selected financial data for the applicable prior periods. See Item 301 of Regulation S-K.

9. Please revise to either disclose or cross-reference to a discussion thereof, any factors that materially affect the comparability of the information provided in your Selected Financial Data. Such items may include, but not be limited to, business acquisitions or dispositions, accounting changes or other significant or unusual items which may be helpful to an investor's understanding of the selected financial data. Refer to the requirements of Item 301 of Regulation S-K.

Risk Factors, page 5

General

10. Please add a risk factor discussing that you may have reduced potential upside to your stockholders by the contractual obligations described in the second paragraph under Recent Developments on page 30.
11. Please also add a risk factor about the decline of the dollar against other currencies and its effect on your purchase of foreign aircraft and parts or tell us why it is not a risk.
12. Footnote 2 of your financial statements indicates that there is a concentration of credit risk because you acquire all of your aircraft from one supplier and that you are dependent on that supplier for timely delivery. Please address the risks associated with your dependence on one supplier in the risk factor section.
13. Please provide a discussion addressing the risks associated being subject to the Penny Stock Rule.

Material weaknesses in internal controls over financial reporting . . . , page 7

14. We note that you are aware of material weaknesses in the design and operation of Avantair's internal controls over financial reporting. Please explain to us, and revise your disclosure in the Risk Factors section and MD&A to indicate the nature of each of these material weaknesses and explain how you plan to remediate the weaknesses and become compliant with Section 404 of the Sarbanes-Oxley Act. Additionally, disclose when the material weakness was identified and when the material weakness first began. Furthermore, please tell us how you have considered these material weaknesses in determining that the audited financial statements for the year ended June 30, 2006 and the unaudited financial statements for the interim period ending December 31, 2006 have been appropriately presented.

Information Regarding Forward-Looking Statements, page 13

15. We note your statement that the prospectus constitutes forward-looking statements “within the meaning of the Private Securities Litigation Reform Act of 1995.” Be advised that Section 27A(b)(1)(C) of the Securities Act and Section 21E(b)(1)(C) of the Securities Exchange Act expressly state that the safe harbor for forward looking statements does not apply to statements made by companies that issue penny stock. Please delete any references to the Private Securities Litigation Reform Act.

Capitalization, page 15

16. We note that the balance sheet as of December 31, 2006 includes \$26,118,444 of borrowings under line of credit from a related party. Please revise your capitalization table to include this amount as an obligation as of December 31, 2006.
17. Please revise to disclose your pro forma capitalization giving effect to the various changes in your capitalization (i.e., common stock issued in reverse acquisition, new credit facility, repayment of obligations to CNM, etc) that occurred subsequent to the latest balance sheet date presented in the registration statement. Your revised disclosure should be accompanied by narrative disclosure explaining the nature and terms of the transactions reflected in the pro forma amounts.

Management’s Discussion and Analysis

Liquidity and Capital Resources, page 26

18. Please revise to disclose your estimate of capital expenditures for fiscal 2007.

Quantitative and Qualitative Disclosures About Market Risk, page 29

19. We note your disclosure that you are subject to market risk from exposure to changes in interest rates, however we do not believe that your disclosure meets the requirements of Item 305 of Regulation SK. Please revise to disclose quantitative information about your exposure to changes in interest rates using one of the three disclosure alternatives set forth in Item 305 of Regulation SK.

Aircraft Maintenance, page 35

20. Please provide an estimate of the number of aircrafts that may be due for D check/ inspection in the next 12 months. If any aircraft is due for D check, please also discuss whether there will be any significant financial impact as a result of the aircrafts being out of service for 21 days and the costs of the inspection.

Information Technology, page 36

21. We note that you have two agreements with your software application services provider, Bitwise Solutions, Inc. for use in your operations control center to plan, schedule and track trips and manage your fleet. Please discuss the terms of the agreements, including any licensing fees, if material to your results. Further, please file the agreements as exhibits.

Summary Compensation Table, page 46

22. Please revise the summary compensation table to comply with Item 402(c) of Regulation S-K. Please also add the information and the tables required by Items 402(d)-(k). Please also revise the Exchange Act reports accordingly. See Release No. 33-8732A (August 29, 2006).

Security Ownership of Certain Beneficial Owners and Management, page 52

23. Please update the security ownership table to the most recent date as practicable.
24. We note from page 50 that Steven Santo and Allison Roberto are the members of Camelot 27 LLC. Please revise the table to include Ms. Roberto.

Certain Relationships and Related Party Transactions, page 53

25. Please disclose the information required by Item 404(a) of Regulation S-K since the beginning of your last fiscal year, including the related person's interest and the approximate dollar value of the amount of the related person's interest in the transactions. In this regard, we bring your attention to the transactions described in footnotes 4 and 7 of your financial statements.

Unaudited Interim Financial Statements for the six months ended December 31, 2006

Notes to the Interim Financial Statements

General

26. We note from your disclosure in Note 11 to the audited financial statements for the year ended June 30, 2006, that in October 2006 you entered into an agreement to sell 3,237,410 shares of Class A Common Stock at \$2.78 per share, of which 539,568 were sold to existing stockholders, including members of management, and compensation expense of \$1,413,668 will be recorded in the quarter ended December 31, 2006 related to this transaction. Please provide us with more details of the transaction that resulted in the recognition of compensation expense, including how the compensation expense was determined or calculated, and where

the amount is recorded in the statement of income. Also, revise your interim financial statements and MD&A to include similar disclosures.

Note 4. Related Party Transactions

27. We note that in October 2006 you issued certain members of management 474,000 shares of Class A Common Stock for \$.01 per share resulting in a charge of \$2,542,000. Please tell us, and revise your disclosures in the notes to your financial statements and MD&A to discuss how the value of the shares was calculated or determined. Also, disclose any vesting or service requirements associated with the shares issued in the notes to your financial statements.
28. We note your disclosure that due to the chairman's resignation, it was agreed that amounts due from him were forgiven in exchange for a significant portion of the stock he owns. Please tell us, and disclose in the notes to the financial statements, the number of shares that were acquired by the company in exchange for the forgiveness of amounts due, and explain to us how the value of those shares was calculated or determined. Also for each period presented, please revise to disclose the method used to account for treasury stock and the number of shares of treasury stock held by the company. See Rule 3-04 of Regulation SX.
29. We note your disclosure that on November 16, 2006 you entered into an agreement to purchase all of the remaining stock owned by the company's former chairman which consisted of 315,178 shares of common stock for \$500,000. Please tell us how you determined the value of the shares purchased and tell us why the statement of stockholders' equity shows 3,221,196 shares as being repurchased in this transaction, rather than the 315,178 shares disclosed in Note 4. Also, please explain why you were not required to recognize any compensation expense in connection with the repurchase of these shares, pursuant to APB 25, SFAS No. 123 or SFAS No. 123(R) as applicable.
30. We note your disclosure that upon the close of the acquisition the CFO will receive warrants for \$.01 exercisable for an aggregate of 200,000 shares of Ardent. Please tell us, and disclose in the notes to your financial statements, how you determined the value of the warrants that was charged to operating expenses at the close of the acquisition. Please include in your response all assumptions used in determining the value of the warrants.

Note 7. Bridge Loans and Sales of Stock

31. We note from your disclosure that the stock purchase agreement includes the issuance of an additional 954,975 shares in fiscal 2007 and 5,000,000 shares in fiscal 2008 if certain financial milestones are achieved and 4,774,873 shares to be issued if the future trading price of the stock meets certain criteria prior to February

23, 2009. Please revise Note 7 to clearly disclose the earnings targets that must be achieved in each applicable year. Also, disclose the planned accounting treatment for the issuance of stock and the rationale for the planned treatment.

32. We note from your disclosure that the October 2, 2006 agreement with CNM also provides that you are required to make a deposit of \$2,180,474 to an aircraft manufacturer for two aircraft. Please tell us if this deposit has been made and if so, tell us the date the amount was paid. If the deposit was paid subsequent to December 31, 2006, we believe the amount should be recorded as an adjustment to the pro forma balance sheet included in the Form 8-K filed March 23, 2007 as it appears to be directly related to the acquisition and factually supportable.

Other

33. Please revise the notes to the company's interim financial statements to give effect to our comments on the company's audited financial statements, where applicable.

Audited Financial Statements for the year ended June 30, 2006

Balance Sheet

34. We note that you have recorded a deferred or prepaid maintenance agreement as an asset on the balance sheet as of June 30, 2006. Please explain to us, and disclose in the notes to the financial statements, the nature of this asset. Also, please tell us, and disclose in the notes to your financial statements, your accounting methods and policies for overhaul and maintenance costs of the aircraft subject to fractional sales arrangements.
35. We note your classification of deferred revenue related to fractional aircraft share sales and deferred maintenance and management fees as long-term liabilities on the balance sheet. We do not believe that the entire amount of deferred revenue or deferred maintenance and management fees should be classified as a long-term liability and we believe that any amounts that will be recognizable within one year should be classified as a current liability. Please revise your balance sheets accordingly. For guidance, see paragraphs 7-8 of ARB 43A.
36. We note that accounts payable and accrued liabilities are included in the same line item on the balance sheet. Please revise to separately disclose in the notes to the financial statements, any accrued amounts greater than 5% of total current liabilities. See Rule 5-02.20 of Regulation SX.

Notes to the Financial Statements

General

37. We note from your disclosure on page 33 that approximately 30% of new share sales during 2005 and 2006 have been generated from referrals from existing share owners and under the referral incentive program, a fractional owner who refers a customer to Avantair receives two additional allocated hours of flight time. Please tell us, and disclose in the notes to your financial statements, how you account for these incentives. See EITF 01-09.
38. We note from your disclosure in Note 3 on page F-25 that you have excluded all outstanding warrants from the calculation of diluted loss per share because all such securities are considered anti-dilutive. Please revise your notes to the financial statements to include: the amount of warrants outstanding; the title and aggregate amount of securities called for by warrants outstanding; the period during which warrants are exercisable; and the exercise price for each period presented. Additionally, please revise to include a table which details the activity of the warrants (exercised, expired, issued) during the three year period for which an income statement is presented. Also, please ensure that the notes to your financial statements explain how all warrants granted during the periods presented were valued and accounted for in your financial statements.

Note 1. Operations and Accounting Policies

Goodwill

39. Given the significant net losses recognized by the company during all periods presented in its financial statements, please tell us in detail in MD&A the method and significant assumptions used by the company in its impairment analysis of its goodwill and other long-lived assets for the most recent period presented. Your response and your revised disclosures should explain your basis for any projected improvements in future operating results that were provided for in your impairment analysis. We may have further comment upon receipt of your response.

Note 2. Acquisition

40. We note the disclosure in Note 2 indicating that on July 11, 2003 Avantair acquired the assets and liabilities of Skyline Aviation, Inc. through the issuance of Avantair's Class A and Class B common stock. Please revise Note 2 to disclose the number of shares of Class A and Class B common stock that were issued in connection with the Skyline acquisition, the value assigned to the shares issued and the basis for determining the valuation of the Class A and Class B common shares. Refer to the disclosure requirements outlined in paragraph 51d of SFAS No.141.

Also, please revise to disclose the primary reasons for the acquisition, including a description of the factors that contributed to a purchase price that resulted in the recognition of goodwill. Refer to the guidance outlined in paragraph 51b of SFAS No.141.

41. Please explain why no identifiable intangible assets other than goodwill were recognized in connection with the Skyline acquisition. As part of your response, please explain what consideration was given to valuing any contracts and/or customer relationships acquired in connection with the acquisition. If you do not believe these items had any material value, explain in detail your basis for this conclusion.

Note 4. Concentrations of Risk

42. We note your disclosure that financial instruments that potentially subject the company to concentrations of credit risk consist principally of cash and cash equivalents. Please revise your notes to the financial statements in future filings to disclose the fair value of all financial instruments for which it is practicable to estimate fair value (i.e. debt obligations, notes payable) and the methods and significant assumptions used to estimate the fair value of financial instruments. See paragraphs 10 and 14 of SFAS No. 107.

Note 8. Related Party Transactions

43. We note from your disclosure in MD&A on page 28 that under the terms of the credit arrangements with CNM, Inc., you are subject to certain restrictions and covenants, including that you may not make any distributions to shareholders and that you must apply all proceeds from the sale of any assets to reduce the debt obligation with CNM, Inc. Please revise your disclosure in the notes to the financial statements to discuss any restrictive covenants (e.g., restrictions on additional borrowings, obligations to maintain minimum working capital or restrict dividends) and assets mortgaged, pledged, or otherwise subject to lien. See paragraphs 18-19 of SFAS No.5 and Rule 4-08(b) of Regulation S-X.

Form 8-K filed March 23, 2007 (dated March 21, 2007)

Unaudited Pro Forma Condensed Combined Financial Statements

Notes to Unaudited Pro Forma Condensed Combined Balance Sheet as of December 31, 2006

Adjustment (b)

44. We note your disclosure that 210,000 shares of Ardent common stock was issued in exchange for services related to structuring and negotiating the acquisition and the value of such shares of approximately \$1,200,000 was charged to paid-in capital. Please tell us how you determined or calculated the value of the shares issued.

Notes to Unaudited Pro Forma Condensed Combined Statements of Operations

Adjustment (h)

45. We note the disclosure indicating that adjustment (h) to the pro forma statement of income does not include non-recurring charges for fully vested equity compensation to be granted to an officer upon consummation of the acquisition as such amount will not have an ongoing impact on the combined company. Please revise the pro forma balance sheet to include an adjustment giving effect to these equity compensation grants since they appear to be directly attributable to the acquisition transaction. Refer to the guidance outlined in Rule 11-02(b)(6) of Regulation S-X.

Unaudited Pro Forma Condensed Combined Statement of Operations for the Twelve Months Ended June 30, 2006

Unaudited Pro Forma Condensed Combined Statement of Operations for the Six Months Ended December 31, 2006

46. We note that the weighted average number of shares outstanding and the net loss per common share presented for Avantair on the pro forma condensed combined statement of operations for the twelve months ended June 30, 2006 and the six months ended December 31, 2006, are different than those amounts presented in the audited financial statements as of June 30, 2006 and unaudited interim financial statements as of December 31, 2006, as included in the Form S-1. Please revise the Form 8-K to make these amounts consistent.

Other

47. The financial statements should be updated, as necessary, to comply with Rule 3-12 of Regulation S-X at the effective date of the registration statement.
48. Provide a currently dated consent from the independent public accountant in the amendment.

* * * * *

As appropriate, please amend the 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 supplemental information. Detailed cover 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 filings reviewed by the staff to be certain that they have provided all information investors require for an informed 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.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, 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 this action as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

Steven Santo
Avantair, Inc.
May 18, 2006
Page 12

We will consider a written request for acceleration of the effective date of the registration statement as a 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 Claire Erlanger at (202) 551-3301 or Linda Cvrkel at (202) 551-3813 if you have questions regarding comments on the financial statements and related matters. Please contact H. Yuna Peng at (202) 551-3391 or me at (202) 551-3750 with any other questions.

Regards,

Max A. Webb
Assistant Director

cc: William Haddad, Esq.
DLA Piper US LLP
via facsimile: (212) 884-8498