

**Room 4561**

July 11, 2006

Mr. Christopher Olander  
Executive Vice President and General Counsel  
Avatech Solutions, Inc.  
10715 Red Run Boulevard, Suite 101  
Owings Mills, Maryland 21117

**Re: Avatech Solutions, Inc.  
Registration Statement on Form S-1 filed June 22, 2006  
File No. 333-135231**

Dear Mr. Olander:

This is to advise you that we have limited our review of the above filings to the matters addressed in the comments below. 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.

Please understand that 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. 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.

Registration Statement on Form S-1

Facing Page

1. Please separately identify the shares you are registering in your registration fee table, such as shares which underlie the Series F preferred stock, each class of warrants and outstanding shares issued to a consultant. Further, please explain your reference to your Series D and E preferred stock in footnote (1). It appears from your disclosure that the shares underlying your Series F preferred stock are being registered.

Prospectus Cover Page

2. Please reconcile the 6,190,000 shares you are registering for resale in this registration statement with the number of shares you have identified in the first paragraph of this registration statement. We further note your statement in the first paragraph under your selling stockholders discussion on page 7 indicating that the prospectus “relates to the resale of an aggregate of 6,449,000 shares.”
3. Please clarify which shares you are referring to in the last sentence of item (a) under the first paragraph. You previously identified an aggregate of 2,400,000 shares issuable upon conversion and exercise of the Series F preferred stock and warrants, respectively. Please explain why the prospectus also includes 3,390,000 shares issuable “upon conversion of the Preferred Stock or in redemption, purchase or payment of dividends on the Preferred Stock, or upon exercise of Warrants” when the 2,400,000 shares appear to account for the conversion and exercise.

Selling Stockholders, page 7

4. Please provide concise disclosure with respect to the transactions between you and the selling stockholders that gave rise to the issuance of the preferred stock and warrants relating to the shares being registered for resale in this registration statement.
5. Please disclose the individual or individuals who exercise the sole or shared voting and/or dispositive powers with respect to the securities to be offered for resale by your selling stockholders. Please see Interpretation I.60 of our July 1997 Manual of Publicly Available Telephone Interpretations and Interpretation 4S of the Regulation S-K portion of the March 1999 Supplement to our July 1997 Manual of Publicly Available Telephone Interpretations.

Exhibit 5

6. Counsel’s opinion references the registration of up to 6,810,000 shares of common stock with this registration statement. Ensure that the shares on which the opinion is rendered reconciles with the shares being registered as set forth in the fee table. Further, we note that shares issuable upon conversion and exercise of your Series F preferred stock and warrants have yet to be issued. Accordingly, counsel’s opinion that the shares are validly issued appears to lack a factual basis. Please revise to provide an opinion that is conditioned upon appropriately narrow factual assumptions as to these yet-to-be issued shares. Specifically identify the shares that counsel is opining on such as shares underlying warrants and the preferred stock.

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As appropriate, please amend your filings in response to this comment. 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 comment 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 to be certain that the filings include all information required under the Securities Act and Exchange Act 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.

Notwithstanding our comment, 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 the staff comments and the declaration of effectiveness 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.

We will consider a written request for acceleration of the effective date of your registration statement as a confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act and the Exchange Act 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.

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We direct your attention to Rule 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 Daniel Lee at (202) 551-3477 with any questions. If you need further assistance, you may contact me at (202) 551-3462 or Barbara Jacobs, Assistant Director, at (202) 551-3730.

Sincerely,

Mark P. Shuman  
Branch Chief – Legal

cc: Via Facsimile  
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