



DIVISION OF  
CORPORATION FINANCE

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

January 15, 2013

Via E-mail

Thomas T. McEntire  
Geospace Technologies Corporation  
Chief Financial Officer  
7007 Pinemont Drive  
Houston, Texas 77040-6601

**Re: Geospace Technologies Corporation  
Form 10-K for the Fiscal Year Ended September 30, 2012  
Filed December 12, 2012  
File No. 001-13601**

Dear Mr. McEntire:

We have reviewed your filings 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 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 please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the fiscal year ended September 30, 2012

Consolidated Financial Statements

Consolidated Statements of Operations, page F-5

1. We see that you generate revenue from the rental of your products. Please tell us how you have considered Rule 5-03.1 of Regulation S-X which states that income from rental should be separately stated on the statement of operations.

Note 1. Summary of Significant Accounting Policies, page F-9

2. We see that you received \$24 million in cash and recognized \$9.9 million of gross profit during FY12 from the sale of used rental equipment. In future filings please include footnote disclosure about your accounting policy for the sale of used rental equipment. In addition, to the extent that fluctuations in sales of used rental equipment has a significant impact on your results of operations, such as your gross profit, please include an appropriate discussion within MD&A in accordance with Rule 303(A) 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.

You may contact Kristin Lochhead at (202) 551-3664 or me at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Geoff Kruczek at (202) 551-3641 or Jay Mumford at (202) 551-3637 with any other questions.

Sincerely,

/s/ Brian Cascio

Brian Cascio  
Accounting Branch Chief

cc: James Y'Barbo (via E-mail)