

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549-7010

Mail Stop 4631

September 11, 2009

By U.S. Mail and Facsimile

Mr. Thomas R. Oxenreiter Chief Financial Officer Geospatial Holdings, Inc. 229 Howes Run Road Sarver, PA 16055

Re: Geospatial Holdings, Inc. Form 10-K for the Fiscal Year Ended December 31, 2008 Form 10-K/A for the Fiscal Year Ended December 31, 2008 Form 10-Q for the Fiscal Quarter Ended March 31, 2009 Form 10-Q for the Fiscal Quarter Ended June 30, 2009 File No. 333-04066

Dear Mr. Oxenreiter:

We have reviewed your filings and have the following comments. Where indicated, we think you should revise your documents in response to these comments. If you disagree, we will consider your explanation as to why our comments are 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 information so we may better understand your disclosure. After reviewing this information, we may 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.

Form 10-K/A for the Fiscal Year Ended December 31, 2008

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operation, page 19

Liquidity and Capital Resources, page 20

1. Given that your auditor expressed substantial doubt about your ability to continue as a going concern in their audit report for the year ended December 31, 2008, please revise your future filings to provide a detailed discussion of how you intend to finance your operations through fiscal year 2009 as provided in section Mr. Thomas R. Oxenreiter Geospatial Holdings, Inc. September 11, 2009 Page 2

> 607.02 of the SEC Codification of Financial Reporting Policies (FRR-16), *Uncertainty About an Entity's Continued Existence*. Your disclosure should include a discussion of your current ability to sell your common stock, to obtain additional advances from stockholders, especially given the lack of cash from operations. Additionally, please address how you intend to meet your obligations related to the Reduct License Agreement.

Application of Critical Accounting Policies, page 21 Impairment Assessment of Intangible Asset, page 22

- 2. In future filings, please expand your critical accounting policy disclosures to provide investors with better insight into management's judgments in accounting for and evaluating the license rights. In this regard, please specifically address/provide:
 - A description of the valuation methodology used;
 - A quantitative discussion of each of the material assumptions you used to estimate fair value and a sensitivity analysis of those assumptions based on reasonably likely changes; and
 - How the assumptions and methodologies used for valuing the license rights in the current year have changed since the prior year highlighting the impact of any changes.

* * *

Please respond to these comments within 10 business days, or tell us when you will provide us with a response. Please provide us with a response letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please furnish your response on EDGAR as a correspondence file. Please understand that we may have additional comments after reviewing your responses to our comments.

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 all information required under the Securities Exchange Act of 1934 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.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

• the company is responsible for the adequacy and accuracy of the disclosure in their filings;

Mr. Thomas R. Oxenreiter Geospatial Holdings, Inc. September 11, 2009 Page 3

- 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.

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 our review of your filings or in response to our comments on your filings.

If you have any questions regarding these comments, you may contact Dale Welcome, Staff Accountant, at (202) 551-3865, Tricia Armelin, Senior Staff Accountant, at (202) 551-3747 or, in their absence, to the undersigned at (202) 551-3768.

Sincerely,

John Cash Accounting Branch Chief