



DIVISION OF
CORPORATION FINANCE

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

August 23, 2011

Via E-Mail

Mr. Steven W. Berglund
Chief Executive Officer
Trimble Navigation Limited
935 Stewart Drive
Sunnyvale, CA 94085

**Re: Trimble Navigation Limited
Form 10-K for fiscal year ended December 31, 2010
Filed March 1, 2011
File No. 1-14845**

Dear Mr. Berglund:

We have reviewed your response letter dated August 8, 2011 and have the following comment. 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 revising future filings where indicated and by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comment applies to your facts and circumstances or do not believe a revision is appropriate, please tell us why in your response.

After reviewing any amendment to your filings and the information you provide in response to this comment, we may have additional comments.

Form 10-K for the year ended December 31, 2010

Reconciliation of GAAP to Non-GAAP Financial Measures, page 42

1. Giving consideration to the significance of your intangible assets balance, the importance of the technology, customer relationships and other intellectual properties underlying the intangible assets, and the recurring nature of the amortization charges, please revise future filings to explain in greater detail why you believe each of the non-GAAP measures excluding the impact of the amortization provides useful information to investors. In this regard, we note your disclosure on page 8 of Appendix A that these charges are inconsistent in size and timing. However, we note that amortization of purchased intangibles has been fairly consistent in recent periods. You further state that you do not believe that these expenses are indicative of your core operating results. However, it appears that the underlying acquired technology and customer relationships

Mr. Steven W. Berglund
Trimble Navigation Limited
August 23, 2011
Page 2

have contributed significantly to your revenues. Provide us with a sample of your proposed revised disclosures.

You may contact David Burton, Staff Accountant at (202) 551-3626 or me at (202) 551-3643 if you have questions regarding comments on the financial statements and related matters. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant at (202) 551-3671.

Sincerely,

/s/ Kevin L. Vaughn

Kevin L. Vaughn
Accounting Branch Chief