

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

July 25, 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 July 15, 2011 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 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 comments apply 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 these comments, 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. We note your response to prior comment 1. However, we do not believe the proposed revised disclosures provide all of the required information. Specifically, the disclosure of the usefulness of each non-GAAP measure appears generic and not specific to each measure. Please further revise the proposed disclosures to more clearly explain why management believes the presentation of each non-GAAP measure provides useful information to investors. Explain what you mean when you refer to the measures offering investors "a more accurate view of [your] core [operating performance]." In this regard, define "core operating performance" as that term is set forth on page 42.
- 2. Further to the above, it also appears that you consider each of the non-GAAP measures presented in the filing to be useful to investors for the same reasons. Please revise the

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discussion of the usefulness of each non-GAAP financial measure to explain why management believes each measure is uniquely useful to investors.

3. We note in the description of each non-GAAP financial measure, you refer to the non-GAAP measure providing "a more accurate view." This disclosure appears to place greater emphasis on the non-GAAP measures rather than the most directly comparable GAAP measure. Please revise your disclosures to clarify this statement in such a way as to avoid placing undue prominence on the non-GAAP measures.

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