

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

July 5, 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 June 16, 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 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. Please refer to prior comment 8. We note that your presentation format in Exhibit A includes expanded language discussing why management excludes certain items from all of the non-GAAP measures presented. However, we do not see where you have provided the disclosure required by Item 10(e)(1)(i)(C) of Regulation S-K for *each* specific non-GAAP measure presented. Please revise future filings to provide the required disclosures for *each* non-GAAP measure. Provide us with a sample of your proposed revised disclosure.

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Item 11. Executive Compensation, page 85

- 2. Your response to prior comment 13 implies that a payment under the MIP is determined solely by operating income growth on an annual basis, contrary to your disclosure regarding eligibility to receive quarterly payments of 15%. Please clarify the purpose of the quarterly operating targets and results and how those targets and results relate to the amounts paid under the MIP.
- 3. You indicate in your response to prior comment 14 that to receive any incentive compensation, the thresholds you mention must be met and Mr. Harrington did not meet those thresholds. However, it appears from pages 24 and 27 of your definitive proxy statement that Mr. Harrington received incentive compensation related to business unit performance. Please clarify why Mr. Harrington was paid an incentive bonus for the performance of the business unit when he did not meet the threshold annual revenue and operating margin. Also, to the extent your incentive program relies on targets related to historical performance, such as the annual minimum thresholds you mention, please disclose those targets in future applicable filings. To the extent that it is appropriate to omit specific targets or performance objectives, you are required to provide appropriate disclosure pursuant to Instruction 4 to Item 402(b) of Regulation S-K.

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. Please contact Gabriel Eckstein, Staff Attorney at (202) 551-3286 or Geoff Kruczek, Legal Reviewer at (202) 551-3641 with any other questions. 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