

Mail Stop 6010

April 4, 2007

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

**Re: Trimble Navigation Limited
Form 10-K for the Fiscal Year Ended December 29, 2006
Filed February 23, 2007
File No. 001-14845**

Dear Mr. Berglund:

We have reviewed your filing and have the following comments. We have limited our review of your filing to those items we have addressed in our comments. Where indicated, we think you should revise your documents in future filings 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 for the Fiscal Year Ended December 29, 2006

Item 8. Financial Statements and Supplementary Data, page 42

Note 2. Accounting Policies, page 46

-Inventories, page 47

1. Consistent with Statement 4 of Chapter Four of ARB 43, you may only use standard costs if they “reasonably approximate costs computed under one of the recognized bases” of inventory accounting. If this is true, then please tell us and revise future filings to disclose this relationship by using the appropriate language. For example, if true you could disclose that standard costs approximate actual costs determined on the first-in first-out basis. Otherwise, you should revise your accounting to use a recognized basis of accounting for your inventory.
2. In addition, it is not clear why you disclose that costs are primarily computed on a standard cost basis. Please tell us and revise future filings to disclose all the methods you use for inventory costing and more accurately define the amount of your inventory that is calculated using those methods.

-Goodwill, Purchased Intangible Assets and Long-Lived Assets, page 47

3. Please tell us and revise future filings to separately disclose in more detail how you calculate impairment for goodwill, intangible assets and long-lived assets. For example, it is not clear from your current disclosure how your accounting complies with the two-step impairment test required for goodwill under paragraphs 19 - 22 of SFAS 142.

-Stock-Based Compensation, page 49

4. You state that you use implied volatility of market-traded options on your common stock for the expected volatility assumption input to the Black-Scholes option-pricing model for valuing rights to purchase your common stock under the employee stock purchase plan. Please tell us why you determined that implied volatility is more representative of future common stock price trends than historical volatility. Include in your response your evaluation of the factors listed in Questions 3 and 4 of SAB Topic 14.D.1.
5. In future filings please provide the disclosures in Question 5 of SAB Topic 14.D.1, SEC Release No. FR-60 and Section V, “Critical Accounting Estimates,” in SEC Release No. FR-72 related to your stock option plans and employee stock purchase plan.

Note 4. Business Combinations, page 54

6. You state that the fair value of your intangible assets acquired are based upon discounted cash flows performed by third-party experts. Please note that if in future periods you intend to incorporate your Form 10-K by reference into a registration statement, you will be required to identify the third-party expert and include its consent. Otherwise, you may revise the filing, as appropriate.

Note 5. Joint Ventures, page 57

7. We also note your disclosure that “[c]ost of sales transactions also include the purchasing of products from CTCT at a higher price than Trimble’s original manufacturing costs for products sold through the Trimble distribution channel.” Please explain how you account for these costs and your consideration of paragraph 18 of APB 18. Please include sample journal entries to demonstrate your accounting for the transactions and the associated elimination entries.
8. Further, we note that your exclusive manufacturing agreement with CTCT ended during fiscal 2005 and, as a result, you now deem transactions with CTCT to be “arms-length” and “presented similarly to other vendor and customer relationships.” Although the agreement may have ended, it appears that you still own 50% of the joint venture. Please tell us the basis for your statements that the transactions are arms-length as discussed in paragraph 3 of SFAS 57.
9. Please tell us why you refer to the earnings or losses from your equity ownership in CTCT as an “affiliated operation.” Please refer to the definition of affiliate in Rule 1-02(b) of Regulation S-X.
10. In this regard, to help us understand the nature of the control relationship, please tell us in more detail about the rights and obligations of each of the parties under the joint venture agreement. For example, discuss voting with respect to operating and financial policies and the ability of the joint venture partners to acquire or dispose of the venture’s assets.
11. Please tell us and in future filings disclose, consistent with paragraph 2(c) of SFAS 57, the amounts of related party transactions for each of the periods for which you present consolidated statements of income.” Please also disclose, consistent with paragraph 2(d), the amounts due to or from the joint venture as of each balance sheet date and the terms and manner of settlement.
12. Please show us and disclose in future filings the summarized financial information required by Item 4-08(g), or tell us why you are not required to disclose this information.

Form 8-K dated January 25, 2007

13. We note that the earnings information furnished on Form 8-K includes numerous non-GAAP financial measures. Please address the following comments related to your non-GAAP measures:

- Please revise future filings to include the reconciliations required by Regulation G and Item 10(e)(1)(i)(B) of Regulation S-K for each non-GAAP financial measure presented.
- Your discussion entitled “non-GAAP versus GAAP financials” is general and does not appear to address all of the measures presented here. Please revise future filings to provide the disclosures required by Regulation G and Item 10(e)(1)(i)(C) and (D) for each non-GAAP financial measure presented.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter that keys your responses to our comment and provides any requested information. Detailed cover letters greatly facilitate our review. 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 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.

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 filing or in response to our comments on your filing.

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You may contact Tara Harkins, Staff Accountant, at (202) 551-3639 or me at (202) 551-3604 if you have questions regarding these comments. In this regard, do not hesitate to contact Kevin Vaughn, Branch Chief, at (202) 551-3643.

Sincerely,

Kate Tillan
Assistant Chief Accountant