

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box.

This Post-Effective Amendment No. 1 to the Registration Statement on Form S-3 (SEC File No. 333-86656) is being filed by Trimble Navigation Limited (the “Registrant”) in order deregister 789,039 shares of the Registrant’s common stock, no par value, underlying unexercised warrants that remain unsold under the Registration Statement. The foregoing number of shares of common stock has been adjusted to reflect the Registrant’s two-for-one stock split effected on February 22, 2007.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Post-Effective Amendment No. 1 to the Registration Statement on Form S-3 to be signed on its behalf by the undersigned, thereto duly authorized, in the city of Sunnyvale, State of California, on this 23rd day of February 2007.

TRIMBLE NAVIGATION LIMITED

By: /s/ Steven W. Berglund
 Name: Steven W. Berglund
 Title: President & Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Post-Effective Amendment No. 1 to Registration Statement No. 333-86656 has been signed by the following persons, in the capacities indicated, as of February 23, 2007.

| Name | Title |
|---|---|
| <u>/s/ Steven W. Berglund</u> Steven W. Berglund | President, Chief Executive Officer, Director |
| <u>/s/ Rajat Bahri</u> Rajat Bahri | Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer) |
| * Robert S. Cooper | Director |
| John B. Goodrich | Director |
| * William Hart | Director |
| * Ulf J. Johansson | Director |
| * Bradford W. Parkinson | Director |

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| Nickolas W. Vande Steeg | | Director |
| * By: <u>/s/ Steven W. Berglund</u> Steven W. Berglund, Attorney In Fact | | |