

HARRINGTON MARK A
 Form 4
 September 21, 2010

FORM 4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION
 Washington, D.C. 20549

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
 HARRINGTON MARK A

2. Issuer Name and Ticker or Trading Symbol
 TRIMBLE NAVIGATION LTD /CA/ [TRMB]

5. Relationship of Reporting Person(s) to Issuer
 (Check all applicable)
 Director 10% Owner
 Officer (give title below) Other (specify below)
 Vice President

(Last) (First) (Middle)
 C/O TRIMBLE NAVIGATION LTD, 935 STEWART DRIVE
 (Street)

3. Date of Earliest Transaction (Month/Day/Year)
 09/20/2010

SUNNYVALE, CA 94085

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
 Form filed by More than One Reporting Person

(City) (State) (Zip)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Ownership (Instr. 4)		
				Code	V	Amount				(A) or (D)	Price
Common Stock	09/20/2010		M			12,500	A	\$ 16.235	14,282	D	
Common Stock	09/20/2010		S ⁽¹⁾			12,500	D	\$ 33	1,782	D	
Common Stock	09/20/2010		M			5,500	A	\$ 16.995	7,282	D	
Common Stock	09/20/2010		S ⁽¹⁾			5,500	D	\$ 34	1,782	D	
Common Stock	09/21/2010		M			34,500	A	\$ 16.995	36,282	D	

Explanation of Responses:

* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) The sale reported in this Form 4 was affected pursuant to a Rule 10b5-1 plan adopted by the reporting person on June 1, 2010.

The price reported is the weighted average sale price of shares sales occurring at prices ranging from \$34.00 to \$34.10. Upon request
(2) from the SEC or a stock holder of the issuer, the reporting person will provide information on the number of shares sold of each separate price.

(3) This option is exercisable 20% at the end of the first year and 1.67% a month thereafter.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.