

Callerame Joseph  
Form 4  
October 14, 2010

**FORM 4**

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

OMB APPROVAL

OMB Number: 3235-0287  
Expires: January 31, 2005  
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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 \*  
Callerame Joseph

2. Issuer Name and Ticker or Trading Symbol  
AMERICAN SCIENCE & ENGINEERING, INC. [ASEI]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)

3. Date of Earliest Transaction (Month/Day/Year)  
10/13/2010

\_\_\_\_ Director  
 Officer (give title below)  
\_\_\_\_ 10% Owner  
\_\_\_\_ Other (specify below)  
SVP

AMERICAN SCIENCE AND ENGINEERING, INC., 829 MIDDLESEX TURNPIKE

(Street)

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

BILLERICA, MA 01821

(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 Indirect Beneficial Ownership (Instr. 4)
				(A) or (D)	Price		
Common Stock	10/13/2010		M <sup>(1)</sup>	630	A \$ 52.82	17,075	D
Common Stock	10/13/2010		S	630	D \$ 78	16,877 <sup>(2)</sup>	D

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 1474 (9-02)

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned**  
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. P... Der... Sec... (Ins...	
				Code	V (A) (D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares
Stock Options	\$ 52.82	10/13/2010		M	630	03/31/2009	06/20/2016	Common Stock	630

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Callerame Joseph AMERICAN SCIENCE AND ENGINEERING, INC. 829 MIDDLESEX TURNPIKE BILLERICA, MA 01821			SVP	

## Signatures

M. Colette  
Cooke

10/14/2010

\*\*Signature of Reporting Person                      Date

## 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 sales reported in this Form 4 were effected pursuant to a Rule 10b5-1 trading plan adopted by the reporting person on August 13, 2010.
- (2) Includes 432 shares of AS&E common stock acquired under the AS&E 401(k) Plan. The information in this report is based on a plan statement dated as of 5/12/2010.

### Remarks:

Exhibit 24 - Power of Attorney

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.