

AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON JANUARY 30, 1998
 Registration No. 333-20647

SECURITIES AND EXCHANGE COMMISSION
 WASHINGTON, D.C. 20549

 POST-EFFECTIVE AMENDMENT NO. 1
 TO
 FORM S-3
 REGISTRATION STATEMENT
 UNDER
 THE SECURITIES ACT OF 1933

ASPEN TECHNOLOGY, INC.
 (Exact name of registrant as specified in its charter)

MASSACHUSETTS
 (State or other jurisdiction
 of incorporation or organization)

04-2739697
 (I.R.S. employer
 identification number)

TEN CANAL PARK
 CAMBRIDGE, MASSACHUSETTS 02141
 (617) 577-0100
 (Address, including zip code, and telephone number, including area code, of
 registrant's principal executive offices)

 LAWRENCE B. EVANS
 Chairman of the Board and Chief Executive Officer
 ASPEN TECHNOLOGY, INC.
 Ten Canal Park
 Cambridge, Massachusetts 02141
 (617) 577-0100
 (Name, address, including zip code, and telephone number, including area code,
 of agent for service)

 Copies to:

STEPHEN J. DOYLE, ESQ.
 Vice President, General Counsel and Clerk
 ASPEN TECHNOLOGY, INC.
 Ten Canal Park
 Cambridge, Massachusetts 02141

MARK L. JOHNSON, ESQ.
 FOLEY, HOAG & ELIOT LLP
 One Post Office Square
 Boston, Massachusetts 02109

The Registrant hereby withdraws from registration a total of 156,297 shares of its common stock, \$.10 par value, registered pursuant to its Registration Statement on Form S-3 (registration number 333-20647). Such Registration Statement initially covered a total of 246,186 shares of common stock (after giving effect to a two-for-one stock split by way of a stock dividend to persons who were holders of record of common stock as of February 14, 1997). The shares being withdrawn were registered for sale from time to time by certain selling stockholders (as named in such Registration Statement) and have not been sold as of the time of filing of this Post-Effective Amendment No. 1.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Post-Effective Amendment No. 1 to Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cambridge, Massachusetts, on this thirtieth day of January, 1998.

ASPEN TECHNOLOGY, INC.

By: /s/ Stephen J. Doyle

Stephen J. Doyle
Vice President, General Counsel and Clerk

Pursuant to the requirements of the Securities Act of 1933, this Post-Effective Amendment No. 1 to Registration Statement has been signed on this thirtieth day of January, 1998 by the following persons in the capacities indicated.

| SIGNATURE ----- | TITLE ----- |
|---|--|
| * ----- LAWRENCE B. EVANS | Chairman of the Board of Directors and Chief Executive Officer (Principal Executive Officer) |
| * ----- MARY A. PALERMO | Executive Vice President (Principal Accounting Officer and Principal Financial Officer) |
| * ----- JOSEPH F. BOSTON | Director |
| * ----- GRESHAM T. BREBACH, JR. | Director |
| * ----- DOUGLAS R. BROWN | Director |
| * ----- JOAN C. MCARDLE | Director |
| * ----- ALISON ROSS | Director |
| *By /s/ Stephen J. Doyle ----- STEPHEN J. DOYLE Attorney-in-fact | |