UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 12 or 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): September 19, 2001

APA OPTICS, INC.

(Exact name of registrant as specified in its charter)

MINNESOTA 0-16106 41-1347235 (State or other jurisdiction (Commission (IRS Employer of incorporation) File Number) Identification No.)

2950 NE 84TH LANE
BLAINE, MINNESOTA 55449
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (763) 784-4995

Item 5. Other Events.

On September 19, 2001, the Board of Directors of APA Optics, Inc. (the "Company"), authorized the repurchase of up to the greater of 500,000 shares or \$2,000,000 of the Company's Common Stock. The repurchase may be made in the open market or in negotiated transactions until September 30, 2002. The shares may be used for issuance upon exercise of stock options and warrants. The timing and amount of repurchase will depend upon market conditions.

- Item 7. Financial Statements and Exhibits.
 - (c) Exhibits
 - 99 Press Release dated September 19, 2001

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: September 19, 2001

APA OPTICS, INC. (Registrant)

Chief Executive Officer

EXHIBIT INDEX

Exhibit Description of Exhibit Numbered Copy

Press Release dated September 19, 2001 Company to repurchase up to 500,000 shares of common stock

MINNEAPOLIS, MN, September, 19, 2001 -- APA Optics, Inc. (Nasdaq: APAT) announced today its board of directors has authorized the repurchase of up to 500,000 shares or \$2,000,000, whichever is greater, of the Company's common stock. The Company has a total of 11,919,081 shares outstanding. The repurchase plan allows the Company to purchase shares of its common stock in the open market or in negotiated transactions until September 30, 2002. The timing and exact amount of purchases will depend on market conditions and purchases will be made with consideration given to covenants related to the Company's debt. The repurchased shares may be used for issuance upon exercise of stock options and warrants.

"We believe that our common stock is an excellent value and view a stock repurchase program as a good way to enhance shareholder value," said Anil K. Jain, APA Optics' president and chief executive officer.

APA Optics, Inc. designs, develops, manufactures and markets advanced products for fiber optic communications, including dense wavelength division multiplexing (DWDM) components, and gallium nitride compound semiconductor-based ultraviolet detectors, instruments and consumer products. Additional information about APA is available at www.apaoptics.com.

Forward-looking statements contained herein are made pursuant to the safe harbor provisions of the Private Litigation Reform Act of 1995. These statements are based upon the Company's current expectations and judgments about future developments in the Company's business. Certain important factors could have a material impact on the Company's performance, including, without limitation, delays in or increased costs of production, delays in or lower than anticipated sales of the Company's new products, the Company's ability to sell such products at a profitable price, the Company's ability to fund operations, and other factors discussed from time to time in the Company's filings with the Securities and Exchange Commission. Readers are cautioned not to place undue reliance on forward-looking statements. The Company undertakes no obligation to update such statements to reflect actual events.