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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

SCHEDULE 13D

**Under the Securities Exchange Act of 1934
(Amendment No.)***

AMTECH SYSTEMS, INC.

(Name of Issuer)

Common Stock, \$.01 par value

(Title of Class of Securities)

032332-50-4

(CUSIP Number)

Stephen T. Braun, Esq.
Boult Cummings Conners & Berry, PLC
414 Union Street, Suite 1600
Nashville, Tennessee 37219
(615) 252-2300

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

April 22, 2005

(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240.13d-7 for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

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

1. Name of Reporting Person: Richard L. Scott
I.R.S. Identification Nos. of above persons (entities only):

2. Check the Appropriate Box if a Member of a Group (See Instructions):

(a)

(b)

3. SEC Use Only:

4. Source of Funds (See Instructions):
PF

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e):

6. Citizenship or Place of Organization:
United States

7. Sole Voting Power:
312,500

Number of
Shares
Beneficially
Owned by
Each Reporting
Person With

8. Shared Voting Power:
-0-

9. Sole Dispositive Power:
312,500

10. Shared Dispositive Power:
-0-

11. Aggregate Amount Beneficially Owned by Each Reporting Person:
312,500

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions):

13. Percent of Class Represented by Amount in Row (11):
9.6%

14. Type of Reporting Person (See Instructions):
IN

This Schedule 13D by Richard L. Scott is being filed to reflect the acquisition by Amtech Investments, LLC, a Delaware limited liability company, of 312,500 shares of Series A Convertible Preferred Stock, par value \$.01 per share (the "Series A Preferred"), of Amtech Systems, Inc. ("Amtech").

Item 1. Security and Issuer

The class of equity to which this statement relates is the Common Stock, \$.01 par value (the "Common Stock"), of Amtech (the "Issuer"). The principal executive offices of the Issuer are located at 131 South Clark Drive, Tempe, Arizona 85281.

Item 2. Identity and Background

This statement is filed by Richard L. Scott (the "Reporting Person").

The business address of the Reporting Person is 700 11th Street S, Suite 101, Naples, Florida 34102.

The Reporting Person is a private investor.

The Reporting Person has not been convicted in any criminal proceedings during the five years preceding the filing of this report.

During the five years preceding the filing of this report, the Reporting Person has not been a party to any civil proceedings of a judicial or administrative body which has resulted in any judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

The Reporting Person is a United States citizen.

Item 3. Source and Amount of Funds or Other Consideration

The Reporting Person has used personal funds of approximately \$1,250,000 to acquire 312,500 shares of Series A Preferred in a private transaction. On an as converted basis, the acquired Series A Preferred is equal to 312,500 shares of Common Stock. The Series A Preferred was purchased by Amtech Investments, LLC, an entity controlled by the Reporting Person.

Item 4. Purpose of Transaction

The Reporting Person purchased the Series A Preferred in a private transaction for general investment purposes. Consistent with such purposes, the Reporting Person may seek to engage in future discussions with management of the Issuer and may make suggestions concerning the Issuer's operations, prospects, business and financial strategies, assets and liabilities, business and financing alternatives and such other matters as the Reporting Person may deem relevant to his investment in the Issuer. In addition, the Reporting Person may from time to time, depending on prevailing market, economic and other conditions, acquire additional shares of the Series A Preferred or

Common Stock of the Issuer or engage in discussions with the Issuer concerning further acquisitions of shares of the Series A Preferred or Common Stock of the Issuer or further investments in the Issuer. The Reporting Person intends to review his investment in the Issuer on a continuing basis and, depending upon the price and availability of shares of the Series A Preferred or Common Stock, subsequent developments affecting the Issuer, the Issuer's business and prospects, other investment and business opportunities available to the Reporting Person, general stock market and economic conditions, tax considerations and other factors considered relevant, may decide at any time to increase or to decrease the size of his investment in the Issuer.

Except as set forth above, the Reporting Person does not have any plans or proposals which relate to or would result in (a) the acquisition of additional securities of the Issuer or the disposition of securities of the Issuer, (b) an extraordinary corporate transaction, such as a merger, reorganization or liquidation involving the Issuer or any of its subsidiaries, (c) a sale or transfer of a material amount of assets of the Issuer or any of its subsidiaries, (d) any change in the present board of directors or management of the Issuer, including any plans or proposals to change the number or term of directors or to fill any existing vacancies on the board of directors of the Issuer, (e) any material change in the present capitalization or dividend policy of the Issuer, (f) any other material change in the business or corporate structure of the Issuer, (g) changes in the Issuer's charter, bylaws or instruments corresponding thereto or other actions which may impede the acquisition of control of the Issuer, (h) the delisting from a national securities exchange or termination of quotations in an inter-dealer quotation system of a registered national securities association for any class of capital stock of the Issuer, (i) a class of equity securities of the Issuer becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Securities Exchange Act of 1934 Common Stock, or (j) or any action similar to the foregoing actions listed. The Reporting Person will continue to evaluate the Issuer and his investment therein and may later determine to propose or support any one or more of such actions in the future, to purchase additional shares of the Series A Preferred or Common Stock or to sell part or all of his holdings of the Series A Preferred or Common Stock of the Issuer.

Item 5. Interest in Securities of the Issuer

The 312,500 shares of the Series A Preferred owned by the Reporting Person is convertible into 312,500 shares of Common Stock, which represents 9.6% of the outstanding Common Stock of the Issuer.

The Reporting Person has sole voting and dispositive power with respect to the Common Stock.

The Reporting Person purchased the Series A Preferred in a private transaction.

The Series A Preferred was purchased by Amtech Investments, LLC, a member managed limited liability company of which Reporting Person is the controlling member.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer

On April 22, 2005, an entity controlled by Reporting Person entered into a Subscription Agreement with the Issuer whereby the Reporting Person purchased 312,500 newly issued shares of the Issuer's Series A Preferred. This agreement is attached as an exhibit hereto.

Other than as set forth above, the Reporting Person does not have any contracts, arrangements, understandings or relationships (legal or otherwise) with any person with respect to any securities of the Issuer, including but not limited to transfer or voting of any of the securities, finder's fees, joint ventures, loan or option arrangements, puts or calls, guarantees of profits, division of profits or loss, or the giving or withholding of proxies.

Item 7. Material to be Filed As Exhibits

Exhibit 1 Subscription Agreement dated as of April 22, 2005, between Amtech Investments, LLC and Amtech Systems, Inc.

Signature

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

DATED: April 29, 2005

/s/ Richard L. Scott

Richard L. Scott