

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

FORM 10-K/A
(Amendment No. 1)

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended: **September 30, 2016**

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____
Commission File Number: **0-11412**

AMTECH SYSTEMS, INC.

(Exact name of registrant as specified in its charter)

Arizona

(State or other jurisdiction of
incorporation or organization)

86-0411215

(I.R.S. Employer
Identification No.)

131 South Clark Drive, Tempe, Arizona

(Address of principal executive offices)

85281

(Zip Code)

Registrant's telephone number, including area code: **480-967-5146**

Securities registered pursuant to Section 12(b) of the Act: **None**

Securities registered pursuant to Section 12(g) of the Act:

Common Stock, \$0.01 Par Value

(Title of Class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§229.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405) is not contained herein, and will not be contained, to the best of registrant's knowledge in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, non-accelerated filer, or a smaller reporting company. See definitions of "large accelerated filer", "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer (do not check if a smaller reporting company) Smaller Reporting Company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of March 31, 2016, the aggregate market value of the voting and non-voting stock held by non-affiliates of the registrant was approximately \$56,195,833, based upon the closing sales price reported by the NASDAQ Global Market on that date.

As of November 22, 2016, the registrant had outstanding 13,179,535 shares of Common Stock, \$0.01 par value.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Definitive Proxy Statement related to the registrant's 2016 Annual Meeting of Shareholders, which Proxy Statement will be filed under the Securities Exchange Act of 1934, as amended, within 120 days of the end of the registrant's fiscal year ended September 30, 2016, are incorporated by reference into Items 10-14 of Part III of this Form 10-K.



EXPLANATORY NOTE

Amtech Systems, Inc. (the “Company”) is filing this Amendment No. 1 on Form 10-K/A (“Amendment No. 1”) to amend Item 8 of its Annual Report on Form 10-K for the fiscal year ended September 30, 2016, originally filed with the Securities and Exchange Commission (the “Commission”) on November 30, 2016 (the “Original Annual Report”). The Company is amending Item 8 of the Original Annual Report solely to correct references to the dates of the Reports of the Independent Registered Accounting Firm, Mayer Hoffman McCann P.C. References to the date of the reports are being changed to November 30, 2016 from December 1, 2016. No other changes have been made to the reports or Item 8. The Company is also filing as Exhibits to Amendment No. 1 a Consent of Independent Registered Public Accountants and the certifications required under Sections 302 and 906 of the Sarbanes-Oxley Act of 2002, with the date of those exhibits being the only change from those originally filed on November 30, 2016. Except for the foregoing, Amendment No. 1 neither alters the Original Annual Report nor updates the Original Annual Report to reflect events or developments since the date of filing of the Original Annual Report.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and

Stockholders of

AMTECH SYSTEMS, INC.

We have audited the accompanying consolidated balance sheets of Amtech Systems, Inc. and Subsidiaries as of September 30, 2016 and 2015, and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the three years in the period ended September 30, 2016. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall consolidated financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Amtech Systems, Inc. and Subsidiaries as of September 30, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended September 30, 2016, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of Amtech Systems, Inc. and Subsidiaries' internal control over financial reporting as of September 30, 2016, based on criteria established in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated November 30, 2016, expressed an unqualified opinion.

Phoenix, Arizona
November 30, 2016

/s/ MAYER HOFFMAN MCCANN P.C.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and

Stockholders of

AMTECH SYSTEMS, INC.

We have audited Amtech Systems, Inc. and Subsidiaries' (the "Company") internal control over financial reporting as of September 30, 2016 based on criteria established in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Amtech Systems, Inc. and Subsidiaries maintained, in all material respects, effective internal control over financial reporting as of September 30, 2016, based on criteria established in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows of the Company, and our report dated November 30, 2016, expressed an unqualified opinion.

Phoenix, Arizona
November 30, 2016

/s/ MAYER HOFFMAN MCCANN P.C.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AMTECH SYSTEMS, INC.

December 1, 2016

By: /s/ Robert T. Hass
Robert T. Hass, Executive Vice President -
Finance and Chief Financial Officer

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTANTS

As independent registered public accountants, we hereby consent to the incorporation by reference in the Registration Statements Nos. 333-139592, 333-140372, 333-146856, and 333-147440 on Form S-1, Nos. 333-09917, 333-10117, 333-47098, and 333-131044 on Form S-3, Nos. 333-09909, 333-09911, 333-46086, 333-76812, 333-103101, 333-131051, 333-145454, 333-168606, 333-168607, 333-196937, 333-196940, and 333-204431 on Form S-8 and No. 333-200558 on Form S-4 of our reports dated November 30, 2016, with respect to the consolidated financial statements of Amtech Systems, Inc. as of September 30, 2016 and 2015 and for the years ended September 30, 2016, 2015, and 2014, and with respect to the effectiveness of internal control over financial reporting as of September 30, 2016, included in this Annual Report on Form 10-K/A.

Phoenix, Arizona
December 1, 2016

/s/ MAYER HOFFMAN MCCANN P.C.

AMTECH SYSTEMS, INC. AND ITS SUBSIDIARIES
CERTIFICATION PURSUANT TO RULE 13a-14(a)/15d-14(a)
OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Fokko Pentinga, certify that:

1. I have reviewed this Annual Report on Form 10-K/A of Amtech Systems, Inc. (the “registrant”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of registrant’s board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

By /s/ Fokko Pentinga

Fokko Pentinga
Chief Executive Officer
Amtech Systems, Inc.
Date: December 1, 2016

AMTECH SYSTEMS, INC. AND ITS SUBSIDIARIES
CERTIFICATION PURSUANT TO RULE 13a-14(a)/15d-14(a)
OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Robert T. Hass, certify that:

1. I have reviewed this Annual Report on Form 10-K/A of Amtech Systems, Inc. (the “registrant”),
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of registrant’s board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

By /s/ Robert T. Hass

Robert T. Hass

Executive Vice President – Finance and Chief Financial Officer

Amtech Systems, Inc.

Date: December 1, 2016

AMTECH SYSTEMS, INC. AND ITS SUBSIDIARIES
CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Amtech Systems, Inc. (the "Company") on Form 10-K/A for the period ended September 30, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Fokko Pentinga, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934;
and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

By /s/ Fokko Pentinga

Fokko Pentinga

Chief Executive Officer

Date: December 1, 2016

AMTECH SYSTEMS, INC. AND ITS SUBSIDIARIES

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Amtech Systems, Inc. (the "Company") on Form 10-K/A for the period ended September 30, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Robert T. Hass, Vice President & Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. ss. 1350, as adopted pursuant to ss. 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934;
and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

By /s/ Robert T. Hass

Robert T. Hass

Executive Vice President – Finance and Chief Financial Officer

Amtech Systems, Inc.

Date: December 1, 2016