

AeroVironment Inc
Form 10-K
June 27, 2012

Table of Contents

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-K

Annual Report Under Section 13 or 15(d) of the Securities Exchange Act of 1934

For the fiscal year ended April 30, 2012

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 001-33261**

AEROVIRONMENT, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

95-2705790

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

**181 W. Huntington Drive, Suite 202
Monrovia, CA**

(Address of Principal Executive Offices)

91016

(Zip Code)

Registrant's telephone number, including area code: **(626) 357-9983**

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

**Title of Class
Common Stock, par value \$0.0001 per share**

**Name of each exchange on which registered
The NASDAQ Stock Market LLC**

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

None

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 (§232.405 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

Edgar Filing: AeroVironment Inc - Form 10-K

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K 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, a non-accelerated filer, or a smaller reporting company. See the 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 Act). Yes No

The aggregate market value of the voting stock held by non-affiliates of the registrant, based on the closing price on the NASDAQ Global Select Market on October 29, 2011 was approximately \$618.7 million.

As of June 15, 2012, the issuer had 22,253,533 shares of common stock, par value \$0.0001 per share, issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A not later than 120 days after the conclusion of the registrant's fiscal year ended April 30, 2012, are incorporated by reference into Part III of this Form 10-K.

Table of Contents

**AEROVIRONMENT, INC.
INDEX TO FORM 10-K**

	Page
<u>PART I</u>	
<u>Item 1. Business</u>	<u>2</u>
<u>Item 1A. Risk Factors</u>	<u>24</u>
<u>Item 1B. Unresolved Staff Comments</u>	<u>46</u>
<u>Item 2. Properties</u>	<u>46</u>
<u>Item 3. Legal Proceedings</u>	<u>46</u>
<u>Item 4. Mine Safety Disclosure</u>	<u>46</u>
<u>PART II</u>	
<u>Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	<u>47</u>
<u>Item 6. Selected Consolidated Financial Data</u>	<u>49</u>
<u>Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	<u>49</u>
<u>Item 7A. Quantitative and Qualitative Disclosures About Market Risk</u>	<u>59</u>
<u>Item 8. Financial Statements and Supplementary Data</u>	<u>60</u>
<u>Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	<u>88</u>
<u>Item 9A. Controls and Procedures</u>	<u>88</u>
<u>Item 9B. Other Information</u>	<u>89</u>
<u>PART III</u>	
<u>Item 10. Directors, Executive Officers and Corporate Governance</u>	<u>91</u>
<u>Item 11. Executive Compensation</u>	<u>91</u>
<u>Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	<u>91</u>
<u>Item 13. Certain Relationships and Related Transactions, and Director Independence</u>	<u>91</u>
<u>Item 14. Principal Accounting Fees and Services</u>	<u>91</u>
<u>PART IV</u>	
<u>Item 15. Exhibits, Financial Statement Schedules</u>	<u>92</u>

Table of Contents

PART I

Forward-Looking Statements

This Annual Report on Form 10-K, or Annual Report, contains forward-looking statements, which reflect our current views about future events and financial results. We have made these statements in reliance on the safe harbor created by the Private Securities Litigation Reform Act of 1995 (set forth in Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act). Forward-looking statements include our views on future financial results, financing sources, product development, capital requirements, market growth and the like, and are generally identified by terms such as "may," "will," "should," "could," "targets," "projects," "predicts," "contemplates," "anticipates," "believes," "estimates," "expects," "intends," "plans" and similar words. Forward-looking statements are merely predictions and therefore inherently subject to uncertainties and other factors which could cause the actual results to differ materially from the forward-looking statement. These uncertainties and other factors include, among other things:

unexpected technical and marketing difficulties inherent in major research and product development efforts;

availability of U.S. government funding for defense procurement and research and development programs;

the extensive regulatory requirements governing our contracts with the U.S. government and the results of any audit or investigation of our compliance therewith;

the potential need for changes in our long-term strategy in response to future developments;

unexpected changes in significant operating expenses, including components and raw materials;

changes in the supply, demand and/or prices for our products;

increased competition, including from firms that have substantially greater resources than we have;

changes in the regulatory environment; and

general economic and business conditions in the U.S. and elsewhere in the world.

Set forth below in Item 1A, "Risk Factors" are additional significant uncertainties and other factors affecting forward-looking statements. The reader should understand that the uncertainties and other factors identified in this Annual Report are not a comprehensive list of all the uncertainties and other factors that may affect forward-looking statements. We do not undertake any obligation to update or revise any forward-looking statements or the list of uncertainties and other factors that could affect those statements.

Item 1. Business.

Overview

We design, develop, produce, support and operate a technologically-advanced portfolio of products and services. We supply unmanned aircraft systems, or UAS, and related services primarily to organizations within the U.S. Department of Defense, or DoD. We also supply charging systems and services for electric vehicles, or EVs, and power cycling and test systems to commercial, consumer and government customers. We derive the majority of our revenue from these business areas and we believe that the markets for these solutions have significant

Edgar Filing: AeroVironment Inc - Form 10-K

growth potential. Additionally, we believe that some of the innovative potential products in our research and development pipeline will emerge as new growth platforms in the future, creating additional market opportunities.

Table of Contents

The success we have achieved with our current products and services stems from our investment in research and development and our ability to invent and deliver advanced solutions, utilizing our proprietary technologies, to help our government, commercial and consumer customers operate more effectively and efficiently. Our core technological capabilities, developed through more than 40 years of innovation, include lightweight aerostructures, power electronics, electric propulsion systems, efficient electric power generation and storage systems, high-density energy packaging, miniaturization, digital data links, aircraft payloads, controls integration and systems engineering optimization.

Our UAS business segment focuses primarily on the design, development, production, support and operation of innovative UAS that provide situational awareness, multi-band communications and other mission effects to increase the security and effectiveness of our customers' operations. Our Efficient Energy Systems, or EES, business segment focuses primarily on the design, development, production, support and operation of innovative efficient electric energy systems that address the growing demand for electric transportation solutions.

Our Strategy

As a technology solutions provider, our strategy is to develop innovative new solutions that enable us to create new markets or market segments, gain market share and grow as market adoption increases. We believe that by introducing new solutions that provide customers with compelling value we are able to create new markets or market segments and then grow our positions within those markets or market segments profitably, instead of competing in existing markets against large, incumbent competitors that may possess advantages in scope, scale and relationships.

We intend to grow our business by maintaining market leadership in UAS, electric vehicle charging systems and power cycling and test systems, and by creating new solutions that enable us to enter and lead new markets. Key components of this strategy include the following:

Expand the sale of our existing solutions to current and new customers. Our small UAS, electric vehicle charging systems and power cycling and test systems are leading solutions in their respective markets. We intend to increase the penetration of our small UAS products and services within the U.S. military, the military forces of allied nations and non-military customers. We believe that the continued adoption of our small UAS by the U.S. military will continue to spur demand by allied countries, and that our efforts to pursue new applications will help to create opportunities beyond the military market we currently serve. We similarly intend to increase the penetration of our electric vehicle charging systems and services, and our power cycling and test systems, into existing and new customer segments globally.

Deliver innovative new solutions. Innovation is the primary driver of our growth. We plan to continue research and development efforts to develop better, more capable products, services and business models, both in response to and in anticipation of emerging customer needs. In some cases these innovations result in upgrades to existing offerings, expanding their value among existing customers and markets. In other cases these innovations become entirely new solutions that position us to address new markets, customers and business opportunities. We believe that by continuing to invest in research and development we will continue to deliver innovative new products and services that address market needs within and outside of our current target markets, enabling us to create new opportunities for growth.

Foster our entrepreneurial culture and continue to attract, develop and retain highly-skilled personnel. We have created a company culture that encourages innovation and an entrepreneurial spirit, which helps to attract and retain highly-skilled professionals. We intend to maintain this culture to encourage the development of the innovative, highly technical system solutions and business models that give us our competitive advantage. A core component of our culture is the demonstration of trust

Table of Contents

and integrity in all of our interactions, contributing to a positive work environment and engendering loyalty among our employees and customers.

Preserve our agility and flexibility. We are able to respond rapidly to evolving markets, solve complicated customer problems, and deliver new products, services and capabilities quickly, efficiently and affordably. We believe this ability helps us to strengthen our relationships with customers and partners. We intend to maintain our agility and flexibility, which we believe to be important sources of differentiation when we compete against organizations with more extensive resources.

Effectively manage our growth portfolio. Our production and development programs and services provide us with numerous investment opportunities that we believe will support our long-term growth. Each opportunity is evaluated independently and within the context of all other investment opportunities to determine its relative priority. This process ensures that we allocate resources based on relative risks and returns to maximize long-term return on investment, which is a key element of our growth strategy.

Customers

We sell the majority of our UAS products and services to organizations within the DoD, including the U.S. Army, Marine Corps, Special Operations Command and Air Force. Our EES business segment generates revenue from commercial, consumer and, to a lesser extent, government customers.

During our fiscal year ended April 30, 2012, approximately 42% of our sales were made to the U.S. Army pursuant to orders made under contract by the U.S. Army on behalf of itself as well as several other organizations within the DoD. Other U.S. government agencies and government subcontractors accounted for 41% of our sales revenue, while purchases by foreign, commercial customers and consumers accounted for the remaining 17% of sales revenue during our fiscal year ended April 30, 2012.

Technology, Research and Development

Technological Competence and Intellectual Property

The innovations developed by our company and our founder include, among others: the world's first effective human-powered and manned solar-powered airplanes; the first modern passenger electric car, the EV1 prototype for General Motors; the world's highest flying airplane in level flight, Helios , a solar-powered unmanned aircraft system that reached over 96,000 feet in 2001; and, more recently, Global Observer, the world's first liquid hydrogen-fuelled unmanned aircraft system and the Nano Hummingbird , the world's first flapping wing unmanned aircraft system capable of precise hover and omni-directional flight . The Smithsonian Institution has selected seven vehicles developed by us or our founder for its permanent collection. Our history of innovation excellence is the result of our creative and skilled employees whom we encourage to invent and develop new technologies.

Our company was founded by the late Dr. Paul B. MacCready, the former Chairman of our board of directors and an internationally renowned innovator who was instrumental in establishing our entrepreneurial and creative culture. This culture has enabled us to consistently attract and retain highly-motivated, talented employees and has established our reputation as an innovative leader in the industries in which we compete.

A component of our ongoing innovation is a screening process that helps our business managers identify early market needs, which assists us in making timely investments into critical technologies necessary to develop solutions to address these needs. Similarly, we manage new product and business concepts through a commercialization process that balances spending, resources, time and intellectual property considerations against market requirements and potential returns on investment. Strongly linking our technology and business development activities to customer needs in attractive growth

Table of Contents

markets is an important element of this process. Throughout the process we revalidate our customer requirement assumptions to help ensure that the products and services we ultimately deliver are of high value.

As a result of our commitment to research and development, we possess an extensive portfolio of intellectual property in the form of patents, trade secrets, copyrights and trademarks across a broad range of UAS and advanced energy technologies. As of April 30, 2012, we had 76 U.S. patents issued; 83 U.S. patent applications pending; 46 active Patent Cooperation Treaty applications; and numerous foreign patents and applications. In many cases, when appropriate and to preserve confidentiality, we opt to protect our intellectual property through trade secrets as opposed to filing for patent protection.

The U.S. government has licenses to some of our intellectual property that is specifically developed in performance of government contracts, and may use or authorize others to use this intellectual property. In some cases we fund the development of certain intellectual property to maximize its value and limit potential competitors from utilizing it. While we consider the development and protection of our intellectual property to be integral to the future success of our business, at this time we do not believe that a loss or limitation of rights to any particular piece of our intellectual property would have a material adverse effect on our overall business.

Research, Development and Commercialization Projects

A core component of our business strategy is the development and commercialization of innovative solutions that we believe can become new products or services and enable us to enter large new markets or accelerate the growth of our current products and services. We invest in an active pipeline of these commercialization projects that range in maturity from technology validation to early market adoption. We cannot predict when, if ever, these projects will be successfully commercialized, or the exact level of capital expenditures they could require, which could be substantial. In our fiscal year 2012, we began to transition our Switchblade loitering munition from the development stage to the initial adoption stage as we received the first small orders for operational systems.

For the fiscal years ended April 30, 2012, 2011 and 2010, our internal research and development spending amounted to 10%, 12% and 10%, respectively, of our revenue, and customer-funded research and development spending amounted to an additional 9%, 12% and 32%, respectively, of our revenue.

Sales and Marketing

Our marketing strategy is to increase awareness of our brand among key target market segments and to be associated with innovation, flexibility, agility and the ability to deliver reliable new technology solutions that improve customer operational effectiveness and efficiency within these segments. Our reputation for innovation is a key component of our brand and has been acknowledged through a variety of awards and recognized in numerous articles in domestic and international publications. We have registered the trademarks for AeroVironment, EV Solutions, PosiCharge, Global Observer, Raven, Wasp AE, and have submitted several other applications for trademark registration, including those for the AeroVironment logo, Qube, Shrike and Switchblade.

International Sales

We are increasing our sales efforts abroad and have contracted with international sales representatives for our business segments in a number of foreign markets. Our international sales accounted for approximately 5%, 7% and 7%, of our revenue for the fiscal years ended April 30, 2012, 2011 and 2010, respectively.

Table of Contents

Competition

We believe that the principal competitive factors in the markets for our products and services include product performance, safety, features, acquisition cost, lifetime operating cost, including maintenance and support, ease of use, rapid integration with existing equipment and processes, quality, reliability, customer support, brand and reputation.

Manufacturing and Operations

We pursue a lean and efficient production strategy across our business segments, focusing on rapid prototyping, supply chain management, final assembly, integration, quality and final acceptance testing. Using concurrent engineering techniques within an integrated product team structure, we rapidly prototype design concepts and products while optimizing our designs for manufacturing requirements, mission capabilities and customer specifications. Within this framework we develop our products with feedback and input from manufacturing, quality, supply chain management, key suppliers, logistics personnel and customers. We rapidly incorporate this input into product designs to ensure maximum efficiency and quality in our products. As a result, we believe that we significantly reduce the time required to move a product from its design phase to full-rate production deliveries with high reliability, quality and yields.

We outsource certain production activities, such as the fabrication of structures, the manufacture of electronic printed circuit board subassemblies, payload components and the medium to high volume production of our EV charging products, to qualified suppliers, with many of whom we have long-term relationships. This outsourcing enables us to focus on final assembly system integration and test processes for our products, ensuring high levels of quality and reliability. We believe that our efficient supply chain is a significant strength of our production strategy. We have forged strong relationships with key suppliers based on their ability to grow with our production needs and support our growth plans. We continue to expand upon our suppliers' expertise to improve our existing products and develop new solutions. We rely on both single and multiple suppliers for certain components and subassemblies. See "Risk Factors" If critical components of our products that we currently purchase from a small number of suppliers or raw materials used to manufacture our products become scarce or unavailable, then we may incur delays in manufacturing and delivery of our products, which could damage our business" for more information. All of our production system operations incorporate internal and external quality programs and processes to increase acceptance rates, reduce lead times and lower cost.

Contract Engineering Services

We actively pursue internally and externally funded projects that help us to strengthen our technological capabilities. Our UAS business segment submits bids to large research customers such as the Defense Advanced Research Projects Agency, the U.S. Air Force, the U.S. Army and the U.S. Special Operations Command for projects that we believe have future commercial application. Contract engineering services conducted through our EES business segment represent a strategic source of innovation for us, and a portion of our business involves providing advanced battery module and pack testing services to automotive and battery manufacturers in support of their electric and hybrid electric vehicle development programs. Providing these services contributes to the development and enhancement of our technical competencies. In an effort to manage the ability of our key technical personnel to support multiple, high-value research and development initiatives, we attempt to limit the volume of contract engineering projects that we accept. This process enables us to focus these personnel on projects we believe offer the greatest current and future value to our business.

Table of Contents

Contract Mix

The table below shows our revenue for the periods indicated by contract type, including both government and commercial sales:

	Fiscal Year Ended		
	April 30,		
	2012	2011	2010
Fixed-price contracts	76%	69%	59%
Cost-reimbursable contracts	23%	30%	40%
Time-and-materials contracts	1%	1%	1%

Employees

As of April 30, 2012, we had 817 full-time employees, of whom 271 were in research and development and engineering, 117 were in sales and marketing, 284 were in operations and 145 were general and administrative personnel. We believe that we have a good relationship with our employees.

Backlog

We define funded backlog as unfilled firm orders for products and services for which funding currently is appropriated to us under the contract by the customer. As of April 30, 2012 and 2011, our funded backlog was approximately \$93.2 million and \$82.9 million, respectively. We expect that approximately 97% of our funded backlog will be filled during our fiscal year ending April 30, 2013.

In addition to our funded backlog, we had unfunded backlog of \$96.1 million and \$230.8 million as of April 30, 2012 and 2011, respectively. We define unfunded backlog as the total remaining potential order amounts under cost reimbursable and fixed price contracts with multiple one-year options, and indefinite delivery, indefinite quantity, or IDIQ contracts. Unfunded backlog does not obligate the U.S. government to purchase goods or services. There can be no assurance that unfunded backlog will result in any orders in any particular period, if at all. Management believes that unfunded backlog does not provide a reliable measure of future estimated revenue under our contracts.

Because of possible future changes in delivery schedules and/or cancellations of orders, backlog at any particular date is not necessarily representative of actual sales to be expected for any succeeding period, and actual sales for the year may not meet or exceed the backlog represented. Our backlog is typically subject to large variations from quarter to quarter as existing contracts expire, or are renewed, or new contracts are awarded. A majority of our contracts, specifically our IDIQ contracts, do not currently obligate the U.S. government to purchase any goods or services. Additionally, all U.S. government contracts included in backlog, whether or not they are funded, may be terminated at the convenience of the U.S. government.

Other Information

AeroVironment, Inc. was originally incorporated in the State of California in July 1971 and reincorporated in Delaware in 2006.

Our principal executive offices are located at 181 W. Huntington Dr., Suite 202, Monrovia, California 91016. Our telephone number is (626) 357-9983. Our website home page on the Internet is <http://www.avinc.com>. We make our website content available for information purposes only. It should not be relied upon for investment purposes, nor is it incorporated by reference into this Annual Report.

We make our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and proxy statements for our annual stockholders' meetings, as well as any amendments to those reports, available free of charge through our website as soon as reasonably practical after we

Table of Contents

electronically file that material with, or furnish it to, the Securities and Exchange Commission, or SEC. You can learn more about us by reviewing our SEC filings. Our SEC reports can be accessed through the investor relations page of our web site at <http://investor.avinc.com>. These reports may also be obtained at the SEC's public reference room at 100 F. Street, N.E., Washington, DC 20549. The SEC also maintains a web site at www.sec.gov that contains reports, proxy statements and other information regarding the Company.

Unmanned Aircraft Systems

Our UAS business segment addresses the increasing economic and security value of network-centric ISR and communications with innovative UAS solutions.

Industry Background

Small UAS

The market for small UAS has grown significantly over the last decade, initially due to the U.S. military's post-Cold War transformation, and now more directly from the demands associated with the current global threat environment. Following the end of the Cold War, the U.S. military began its transformation into a smaller, more agile force that operates via a network of observation, communication and precision targeting technologies. This transformation accelerated following the terrorist attacks of September 11, 2001, as the U.S. military required improved, distributed observation and targeting of enemy combatants who operate in small groups, often embedded in dense population centers or dispersed in remote locations. We believe that UAS, which range from large systems, such as Northrop Grumman's *Global Hawk* and General Atomics' *Predator*, *Sky Warrior*, *Reaper* and *Gray Eagle*, to small systems, such as our Raven, Wasp AE and Puma, serve as integral components of this transforming military force. These systems provide critical observation and communications capabilities serving the increasing demand for actionable intelligence, while reducing risk to individual "warfighters." Small UAS can provide real-time observation and communication capabilities to the small units who control them. As we explore opportunities to develop new markets for our small UAS, such as border surveillance, law enforcement, first response and infrastructure monitoring, we expect further growth through the introduction of UAS technology to non-military applications once rules are established for their safe and effective operation in each country's national airspace system.

Stratospheric Persistent UAS

We believe a market opportunity exists for UAS that can fly for multiple days to perform continuous remote sensing and communications relay missions in an affordable manner. The emergence of distributed military threats in geographic areas with limited communications infrastructure has prompted U.S. military forces to deploy solutions to manage the increasing volume of data generated by their operations in those areas. Existing solutions such as communications satellites and manned and unmanned aircraft address some of this emerging demand for bandwidth, but do so at relatively high financial and resource costs. Given the nature of asymmetrical warfare, with embedded military adversaries operating in population centers, rural areas and remote locations, the ability to observe areas of interest on a continuous basis with high resolution sensors remains a critical and largely unmet need. Geosynchronous satellites provide fixed, continuous communications relay capabilities to much of the globe, but they operate nearly 25,000 miles from the surface of the earth, therefore limiting the bandwidth they can provide and requiring relatively larger, higher power ground stations. Remote sensing satellites typically operate at lower altitudes, but are unable to maintain geosynchronous positions, meaning they are moving with respect to the surface of the earth, resulting in a limited presence over specific areas of interest, and significant periods of time during which they are not present over those areas. UAS that are capable of operating for extended periods of time over an area

Table of Contents

of interest without gaps in availability while carrying a communications relay or observation payload in an affordable manner could help to satisfy this need.

Loitering Airborne Munitions Systems

The development of weapons capable of rapid deployment and of striking their targets with high precision while minimizing the risk to surrounding civilians, property and the operator accelerated in recent years due to advances in enabling technologies. Weapons such as laser-guided missiles, "smart" bombs and GPS-guided artillery shells have dramatically improved the accuracy of strikes against hostile targets. When ground forces find themselves engaged in a firefight or near a target, their ability to deploy and use a precision weapon system quickly and easily can mean the difference between mission success and failure. Embedding a lethal payload into a remotely piloted, man-portable delivery system could provide warfighters with a valuable alternative to existing airborne and land-based munitions systems.

Our UAS Solutions

Small UAS Products

Our small UAS, including Raven, Wasp AE, Puma and Shrike, are designed to provide valuable ISR and communications, including real-time tactical reconnaissance, tracking, combat assessment and geographic data, directly to the small tactical unit or individual warfighter, thereby increasing flexibility in mission planning and execution. Our small UAS wirelessly transmit critical live video and other information generated by their payload of electro-optical or infrared sensors directly to a hand-held ground control unit, enabling the operator to view and capture images, during the day or at night, on the control unit. Our ground control systems allow the operator to control the aircraft by programming it for GPS-based autonomous navigation using operator-designated way-points and also provide for manual flight operation. The ground control systems are designed for durability and ease of use in harsh environments and incorporate a user-friendly, intuitive, graphical user interface. All of our small UAS currently in production operate from our common ground control system.

All of our small UAS are designed to be man-portable, assembled without tools in less than five minutes and launched and operated by one person, with limited training required. The efficient and reliable electric motors used in all of our small UAS are powered by replaceable modular battery packs that can be swapped out quickly, enabling rapid return to flight. All of our small UAS, other than Switchblade, which we consider a loitering munition, are designed to be reusable and can be recovered through an autonomous landing feature that enables a controlled descent to a designated location.

In military applications, our small systems enable tactical commanders to observe around the next corner, to the next intersection or past the ridgeline in real-time. This information facilitates faster, safer movement through urban, rural and mountainous environments and can enable troops to be proactive based on field intelligence rather than reactive. Moreover, by providing this information, our systems reduce the risk to warfighters and to the surrounding population by providing the ability to tailor the military response to the threat. U.S. military personnel regularly use our small UAS, such as Raven, for missions such as force protection, combat observation and damage assessment. These reusable systems are easy to transport, assemble and operate and are relatively quiet when flying at typical operational altitudes of 200 to 300 feet above ground level, the result of our efficient electric propulsion systems. Furthermore, their small size makes them difficult to see from the ground. In addition, the low cost of our small UAS relative to larger systems and alternatives makes it practical for customers to deploy these assets directly to warfighters.

Our small UAS also include spare equipment, alternative payload modules, batteries, chargers, repair services and customer support. We provide training by our highly-skilled instructors, who typically have extensive military experience, and continuous refurbishment and repair services for our products. By maintaining close contact with our customers and users in the field, we gather critical

Edgar Filing: AeroVironment Inc - Form 10-K

Table of Contents

feedback on our products and incorporate that information into ongoing product development and research and development efforts. This approach enables us to improve our solutions in response to, and in anticipation of, evolving customer needs.

Each system in our small UAS portfolio typically includes multiple aircraft, our common and interoperable hand-held ground control system and an array of spare parts and accessories. Our current small UAS portfolio consists of the following aircraft:

Small UAS Product	Wingspan (ft.)	Weight (lbs.)	Recovery	Standard Sensors	Range (mi.)(1)	Flight Time (min.)(1)
Puma	9.2	13.0	Vertical autonomous landing capable (ground or water)	Mechanical pan, tilt, zoom and digital zoom electro-optical and infrared	9.0	120
Raven	4.5	4.2	Vertical autonomous landing capable	Mechanical pan, tilt, zoom and digital zoom electro-optical and infrared	6.0	90
Wasp AE	3.3	2.8	Vertical autonomous landing capable (ground or water)	Mechanical pan, tilt, zoom and digital zoom electro-optical and infrared	3.0	50
Shrike	3.0	5.5	Vertical takeoff and landing	Mechanical pan, tilt, zoom and digital zoom electro-optical and infrared	5.0	40

(1) Represents point-to-point minimum customer-mandated specifications for all operating conditions. In optimal conditions, the performance of our products may significantly exceed these specifications. DDL relay can extend range significantly.

The ground control system is the primary interface between the operator and the aircraft, and allows the operator to control the direction, speed and altitude of the aircraft as well as view the visual information generated by the aircraft through real-time, streaming video. Our ground control system interfaces with each of our air vehicles, except Qube, providing a common user interface with each of our air vehicles. In addition to the thousands of air vehicles delivered to our customers, thousands of ground control systems are also in our customers' hands.

The Qube is a new unmanned aircraft system tailored to the needs of public safety professionals such as law enforcement, search and rescue and fire department personnel. Based on the Shrike platform, the Qube incorporates a simplified touch screen interface to control the system and view the information produced by the air vehicle's onboard sensors. Portable and easy to assemble, operate and stow, the Qube is designed to provide rapid airborne information within one kilometer of its launch point in situations where time is short and risk is high.

During fiscal 2012 we began production of new miniature gimbaled sensor payloads with mechanical pan, tilt and zoom capabilities that integrate both electro-optical and infrared sensors into a single payload for our Raven system. Part of a new line of miniature gimbaled products, these payloads provide small UAS operators with enhanced observation and target tracking functionality. Our DDL is now integrated into Puma, Raven and Wasp AE, Shrike and Qube systems, enhancing their capabilities, and ultimately, the utility of our small UAS by enabling more efficient radio spectrum utilization and

Table of Contents

communications security. Small UAS incorporating our DDL offer many more channels as compared to our analog link, increasing the number of air vehicles that can be operated in a given area. Additionally, our DDL enables each air vehicle to operate as an Internet-Protocol addressable hub capable of routing and relaying video, voice and data to and from multiple other nodes on this *ad hoc* network. This capability will enable beyond line-of-sight operation of our small UAS, further enhancing their value proposition to our customers.

UAS Logistics Services

In support of our small UAS we offer a suite of services that help to ensure the successful operation of our products by our customers. These services generate incremental revenue for the company and provide us with continuous feedback to understand the utility of our systems, anticipate our customers' needs and develop additional customer insights. We believe that this ongoing feedback loop enables us to continue to provide our customers with innovative solutions that help them succeed. We provide spare parts as well as repair, refurbishment and replacement services through our services operation. We designed our services operation to minimize supply chain delays and support our customers with spare parts, replacement aircraft and support whenever and wherever they need them. One of our facilities also serves as the primary depot for repairs and spare parts.

We provide complete training services to support all of our small UAS. Our highly-skilled instructors typically have extensive military experience. We deploy training teams throughout the continental United States and abroad to support our customers' wide variety of training needs on both production and development-stage systems.

UAS Mission Services

Customers who require the information generated by our small UAS but who may not wish to purchase and operate the equipment themselves can contract with us for turnkey mission services. We deploy qualified operators to locations around the world to provide small UAS-generated reconnaissance video and other information to support numerous types of missions.

UAS Contract Engineering Services

We provide contract engineering services in support of customer-funded research and development projects, delivering new value-added technology solutions to our customers. These types of projects typically involve developing new system solutions and technology or new capabilities to existing solutions that we introduce as retrofits or upgrades. We recognize customer-funded research and development projects as revenue.

We supply our UAS products and services to multiple customers in the United States and beyond. We had delivered approximately 73% of the U.S. Army's acquisition objective for new Raven small UAS, which totals 2,358 systems, as of April 30, 2012. During fiscal 2012, strong demand for our digital Puma system complemented continued demand for digital Raven systems and UAS services, increasing the breadth of our UAS portfolio. For the fiscal years ended April 30, 2012, 2011 and 2010, our UAS segment products and services accounted for 84%, 85% and 90%, respectively, of our revenue.

UAS Technology, Research and Development

Our primary areas of technological competence represent the sum of numerous technical skills and capabilities that help to differentiate our approach and product offerings. The following list highlights a number of our key UAS technological capabilities:

lightweight, low speed aerostructures and aerodynamic design;

Table of Contents

miniaturized avionics and micro/nano unmanned aircraft systems;

image stabilization and target tracking;

unmanned autonomous control systems;

payload capability, miniaturization and integration;

electric and hydrogen propulsion systems and high-pressure-ratio turbochargers;

stratospheric flight operations;

fluid dynamics;

miniature, low power wireless digital communications; and

system integration and optimization.

Two of our UAS development initiatives are described below:

Global Observer. Global Observer is our high-altitude, long-endurance unmanned aircraft system under development to address the critical need for affordable, 24-hour, 365-days-a-year persistent communications and ISR. Each Global Observer aircraft is designed to operate at up to 65,000 feet for up to a week before landing. A complete system would include at least two aircraft, one flying over a designated area and the other in preparation or in transit to or from the designated area, which would alternate positions approximately every week to maintain an uninterrupted presence. Global Observer is the continuation of years of research with both our own and U.S. government development funding. The system has been developed and tested under a three-and-one-half-year joint capabilities technology demonstration program, or JCTD, sponsored by several agencies of the U.S. government. We expect the efficiency and endurance of this unmanned aircraft system, three to four times the longest flight time of existing payload-capable fixed-wing aerial options, to provide for dramatically lower operating and total life cycle costs for missions where long distance persistent communications or surveillance is critical. The Global Observer platform is intended to be the low-cost equivalent of a 12-mile-high, redeployable satellite, providing a potential footprint of coverage of up to 600 miles in diameter and capable of providing a broad array of services, including high-speed broadband data, video and voice relay and ISR. We expect these capabilities to provide the foundation for multiple high-value applications including communications relay and ISR missions for defense and homeland security, storm tracking, telecommunications infrastructure, wildfire detection/tracking and disaster recovery services.

The first Global Observer aircraft developed in the JCTD successfully completed extensive ground testing and then eight test flights at Edwards Air Force Base in California between August 2010 and March 2011, the last three flights using its liquid hydrogen-fuelled propulsion system. More than 18 hours into its ninth flight, after reaching 30,000 feet altitude, the aircraft experienced a mishap that resulted in it impacting the ground on an uninhabited portion of the base and being damaged beyond repair. Our internal analysis determined the cause of the mishap and we subsequently developed and successfully tested a solution designed to prevent this from happening in the future.

Development of New Small UAS Solutions and Enhancements to Existing Solutions. Based on feedback from our customers and our own assessment of market needs, we continuously pursue the development of new small UAS and enhancements to our existing small UAS. Both we and our customers fund this development work. An example of a customer-funded new small UAS is the Shrike, an unmanned aircraft designed to fly to difficult-to-access locations,

Table of Contents

land on and secure itself in a "perch" position, conduct sustained surveillance missions and then re-launch from its perch and return to its home base.

UAS Sales and Marketing

We organize our U.S. UAS business development team members by customer and product and have team members located where they are in close proximity to the customers they support. Our program managers are organized by product and focus on designing optimal solutions and contract fulfillment, as well as internalizing feedback from customers and users. By maintaining assigned points of contact with our customers, we believe that we are able to enhance our relationships, service existing contracts effectively and gain vital feedback to improve our responsiveness and product offerings.

UAS Manufacturing and Operations

We have successfully developed the manufacturing infrastructure to produce small UAS products at high rates, support initial low rate production for new small UAS development programs and loitering munition systems and execute initial low-rate production of our stratospheric persistent UAS, Global Observer. Continued investment in infrastructure has established our manufacturing capability to meet demand with scalable capacity. By drawing upon experienced personnel across various manufacturing industries including aerospace, automotive and volume commodities, we have instituted lean production systems and lever our International Organization for Standardization, or ISO, certification, integrated supply chain strategy, document control systems, and process control methodologies for a high volume, efficient production system. Presently, our small UAS manufacturing is performed at our 85,000 square foot manufacturing facility established in 2005. This ISO 9001:2000 certified manufacturing facility is designed to accommodate demand of up to 1,000 aircraft per month. ISO 9001:2000 refers to a set of voluntary standards for quality management systems. These standards are established by the ISO to govern quality management systems used worldwide. Companies that receive ISO certification have passed audits performed by a Registrar Accreditation Board-certified auditing company. These audits evaluate the effectiveness of companies' quality management systems and their compliance with ISO standards. Some companies and government agencies view ISO certification as a positive factor in supplier assessments. Our 105,000 square foot facility housing the Global Observer program is equipped with specialized testing and production capabilities to enable low rate production of this unique system.

UAS Competition

The market for military small UAS is evolving rapidly and subject to changing technologies, shifting customer needs and expectations and the potential introduction of new products. We believe that a number of established domestic and international defense contractors have developed or are developing small UAS that will continue to compete directly with our products. Some of these contractors have significantly more financial and other resources than we possess. Our current principal small UAS competitors include Elbit Systems Ltd., L-3 Communications Holdings, Inc. and Lockheed Martin Corporation. We do not view large UAS such as Northrop Grumman Corporation's *Global Hawk*, General Atomics, Inc.'s *Predator* and its derivatives, The Boeing Company's *ScanEagle* and Textron Inc.'s *Shadow* as direct competitors to our small UAS because they perform different missions, do not typically deliver their information directly to front-line ground forces and are not hand launched and controlled, although we cannot be certain that these platforms will not become direct competitors in the future.

The market for high altitude long endurance UAS is in an early stage of development. As a result, this category is not well defined and is characterized by multiple potential solutions. Existing contractors that claim to provide long endurance UAS include Northrop Grumman Corporation with its *Global Hawk*. Several aerospace and defense contractors are pursuing this market opportunity with

Table of Contents

proposed very long duration UAS, including The Boeing Company, Qinetiq Group PLC, Aurora Flight Sciences Corporation, Lockheed Martin Corporation and Northrop Grumman Corporation. Companies pursuing airships as a solution for this market include Lockheed Martin Corporation and Northrop Grumman Corporation. Companies pursuing satellites as a solution for this market include The Boeing Company, Lockheed Martin Corporation, General Dynamics Corporation, EADS N.V., Ball Corporation and Orbital Sciences Corporation.

The market for UAS mission services includes some of the companies competing in the small UAS market as well as companies focused on delivering services as opposed to developing and producing their own UAS. UAS manufacturers such as The Boeing Company's Insitu Business and Textron Inc.'s AAI Corporation currently deliver UAS mission services to military customers. Other companies such as ISR Group Inc., Dyncorp International LLC and VT Group plc focus on providing services including those employing UAS.

The market for non-military small UAS is in an early stage of development. The primary factors hindering the development of this market in the U.S. include Federal Aviation Administration, or FAA, regulations that severely restrict the use of small UAS in the national airspace system and Federal Communications Commission regulations regarding the availability of electromagnetic frequency spectrum for the operation of these systems. Initial likely non-military users of small UAS include public safety organizations such as law enforcement agencies, search and rescue teams and fire departments. In addition to companies competing in the military small UAS market, the non-military market could attract numerous additional competitors given perceived lower barriers to entry and a much more fragmented marketplace as compared to the military market. Potential additional competitors could include start-up companies and individuals providing extremely low cost solutions.

We believe that the principal competitive factors in the markets for our UAS products and services include product performance, features, acquisition cost, lifetime operating cost, including maintenance and support, ease of use, integration with existing equipment and processes, quality, reliability, customer support, brand and reputation.

UAS Regulation

Due to the fact that we contract with the DoD and other agencies of the U.S. government, we are subject to extensive federal regulations, including the Federal Acquisition Regulations, Defense Federal Acquisitions Regulations, Truth in Negotiations Act, Foreign Corrupt Practices Act, False Claims Act and the regulations promulgated under the DoD Industrial Security Manual, which establishes the security guidelines for classified programs and facilities as well as individual security clearances. The federal government audits and reviews our performance on contracts, pricing practices, cost structure, and compliance with applicable laws, regulations and standards. Like most government contractors, our contracts are audited and reviewed on a continual basis by federal agencies, including the Defense Contract Management Agency, or DCMA, and the Defense Contract Audit Agency, or DCAA.

Certain of these regulations carry substantial penalty provisions, including suspension or debarment from government contracting or subcontracting for a period of time if we are found to be in violation. We carefully monitor all of our contracts and contractual efforts to minimize the possibility of any violation of these regulations.

In addition, we are subject to industry-specific regulations due to the nature of the products and services we provide.

For example, we are subject to further U.S. government regulation, including by the FAA, which regulates airspace for all air vehicles, by the National Telecommunications and Information Administration and Federal Communications Commission, which regulate the wireless communications upon which our UAS depend in the U.S., and under the International Traffic in Arms Regulations,

Table of Contents

which regulate the export of controlled technical data, defense articles and defense services. In 2006, the FAA issued a clarification of its existing policies stating that, in order to engage in public use of small UAS in the U.S. National Airspace System, a public (government) operator must obtain a Certificate of Authorization, or COA, from the FAA or fly in restricted airspace. The FAA's COA approval process requires that the public operator certify the airworthiness of the aircraft for its intended purpose, that a collision with another aircraft or other airspace user is extremely improbable, that the small unmanned aircraft system complies with appropriate cloud and terrain clearances and that the operator or spotter of the small unmanned aircraft system is generally within one half-mile laterally and 400 feet vertically of the small unmanned aircraft system while in operation. Furthermore, the FAA's clarification of existing policy states that the rules for radio-controlled hobby aircraft do not apply to public or commercial use of small UAS. The U.S. Congress recently mandated that the FAA develop rules that provide for the integration of small UAS into the national airspace system by September 30, 2015. The FAA is in the process of drafting updated regulations specifically for small UAS operations. We have engaged in discussions with the FAA to help ensure that these new regulations allow for the maximum safe utilization of our small UAS.

Furthermore, our non-U.S. operations are subject to the laws and regulations of foreign jurisdictions, which may include regulations that are more stringent than those imposed by the U.S. government on our U.S. operations.

UAS Government Contracting Process

We sell the significant majority of our small UAS products and services as the prime contractor under contracts with the U.S. government. Certain important aspects of our government contracts are described below.

UAS Bidding Process

Most of our current government contracts were awarded through a competitive bidding process. The U.S. government awards competitive-bid contracts based on proposal evaluation criteria established by the procuring agency. Competitive-bid contracts are awarded after a formal bid and proposal competition among providers. Interested contractors prepare a bid and proposal in response to the agency's request for proposal or request for information. A bid and proposal is usually prepared in a short time period in response to a deadline and requires the extensive involvement of numerous technical and administrative personnel. Following award, competitive-bid contracts may be challenged by unsuccessful bidders.

UAS Funding

The funding of U.S. government programs is subject to congressional appropriations. Although multi-year contracts may be authorized in connection with major procurements, Congress generally appropriates funds on a fiscal year basis, even though a program may continue for many years. Consequently, programs are often only partially funded initially, and additional funds are committed only as Congress makes further appropriations.

The contracts for our full-rate production UAS are funded either through operational needs statements or as programs of record. Operational needs statements represent allocations of discretionary spending or reallocations of funding from other government programs. Funding for our production of initial Raven system deliveries was provided through operational needs statements. We define a program of record as a program which, after undergoing extensive DoD review and product testing, is included in the five-year government budget cycle, meaning that funding will be allocated for purchases under these contracts during the five-year cycle, absent affirmative action by the customer or Congress to change the budgeted amount. Funding for these programs is subject to annual approval.

Table of Contents

We are currently the sole provider and prime contractor under all of the programs of record established by the DoD for small UAS.

UAS Material Government Contract Provisions

All contracts with the U.S. government contain provisions, and are subject to laws and regulations, that give the government rights and remedies not typically found in commercial contracts, including rights that allow the government to:

terminate existing contracts for convenience, which affords the U.S. government the right to terminate the contract in whole or in part anytime it wants for any reason or no reason, as well as for default;

reduce or modify contracts or subcontracts, if its requirements or budgetary constraints change;

cancel multi-year contracts and related orders, if funds for contract performance for any subsequent year become unavailable;

claim rights in products and systems produced by its contractors if the contract is cost reimbursable and the contractor produces the products or systems during the performance of the contract;

adjust contract costs and fees on the basis of audits completed by its agencies;

suspend or debar a contractor from doing business with the U.S. government; and

control or prohibit the export of products.

Generally, government contracts are subject to oversight audits by government representatives. Provisions in these contracts permit termination, in whole or in part, without prior notice, at the government's convenience or upon contractor default under the contract. Compensation in the event of a termination, if any, is limited to work completed at the time of termination. In the event of termination for convenience, the contractor may receive a certain allowance for profit on the work performed.

UAS Government Contract Categories

We have three types of government contracts, each of which involves a different payment methodology and level of risk related to the cost of performance. These basic types of contracts are typically referred to as fixed-price contracts, cost reimbursable contracts, including cost-plus-fixed fee, cost-plus-award fee, and cost-plus-incentive fee, and time-and-materials contracts.

In some cases, depending on the urgency of the project and the complexity of the contract negotiation, we will enter into a Letter Contract prior to finalizing the terms of a definitive fixed-price, cost reimbursable or time-and-materials definitive contract. A Letter Contract is a written preliminary contractual instrument that provides limited initial funding and authorizes us to begin immediately manufacturing supplies or performing services while negotiating the definitive terms of the procurement.

Fixed-Price. These contracts are not subject to adjustment by reason of costs incurred in the performance of the contract. With this type of contract, we assume the risk that we will not be able to perform at a cost below the fixed-price, except for costs incurred because of contract changes ordered by the customer. Upon the U.S. government's termination of a fixed-price contract, generally we would be entitled to payment for items delivered to and accepted by the U.S. government and, if the termination is at the U.S. government's convenience, for payment of fair compensation for work performed plus the costs of settling

Table of Contents

and paying claims by any terminated subcontractors, other settlement expenses and a reasonable allowance for profit on the costs incurred.

Cost Reimbursable. Cost reimbursable contracts include cost-plus-fixed fee contracts, cost-plus-award fee contracts and cost-plus-incentive fee contracts. Under each type of contract, we assume the risk that we may not be able to recover costs if they are not allowable under the contract terms or applicable regulations, or if the costs exceed the contract funding.

Cost-plus-fixed fee contracts are cost reimbursable contracts that provide for payment of a negotiated fee that is fixed at the inception of the contract. This fixed fee does not vary with actual cost of the contract, but may be adjusted as a result of changes in the work to be performed under the contract. This contract type poses less risk of loss than a fixed-price contract, but our ability to win future contracts from the procuring agency may be adversely affected if we fail to perform within the maximum cost set forth in the contract.

A cost-plus-award fee contract is a cost reimbursable contract that provides for a fee consisting of a base amount, which may be zero, fixed at inception of the contract and an award amount, based upon the government's satisfaction with the performance under the contract. With this type of contract, we assume the risk that we may not receive the award fee, or only a portion of it, if we do not perform satisfactorily.

A cost-plus-incentive fee contract is a cost reimbursable contract that provides for an initially negotiated fee to be adjusted later by a formula based on the relationship of total allowable costs to total target costs.

We typically experience lower profit margins and lower risk under cost reimbursable contracts than under fixed-price contracts. Upon the termination of a cost reimbursable contract, generally we would be entitled to reimbursement of our allowable costs and, if the termination is at the U.S. government's convenience, a total fee proportionate to the percentage of work completed under the contract.

Time-and-Materials. Under a time-and-materials contract, our compensation is based on a fixed hourly rate established for specified labor or skill categories. We are paid at the established hourly rates for the hours we expend performing the work specified in the contract. Labor costs, overhead, general and administrative costs and profit are included in the fixed hourly rate. Materials, subcontractors, travel and other direct costs are reimbursed at actual costs plus an amount for material handling. We make critical pricing assumptions and decisions when developing and proposing time-and-materials labor rates. We risk reduced profitability if our actual costs exceed the costs incorporated into the fixed hourly labor rate. One variation of a standard time-and-materials contract is a time-and-materials, award fee contract. Under this type of contract, a positive or negative incentive can be earned based on achievement against specific performance metrics.

UAS Indefinite Delivery Indefinite Quantity Contract Form

The U.S. government frequently uses IDIQ contracts and IDIQ-type contract forms, such as cost reimbursable and fixed price contracts with multiple one-year options, to obtain fixed-price, cost reimbursable and time-and-materials contractual commitments to provide products or services over a period of time pursuant to established general terms and conditions. At the time of the award of an IDIQ contract or IDIQ-type contract, the U.S. Government generally commits to purchase only a minimal amount of products or services from the contractor to whom such contract is awarded.

Table of Contents

After award of an IDIQ contract the U.S. Government may issue task orders for specific services or products it needs. The competitive process to obtain task orders under an award contract is limited to the pre-selected contractors. If such contract has a single prime contractor, then the award of task orders is limited to that contractor. If the contract has multiple prime contractors, then the award of the task order is competitively determined among only those prime contractors.

IDIQ and IDIQ-type contracts typically have multi-year terms and unfunded ceiling amounts which enable, but do not commit, the U.S. government to purchase substantial amounts of products and services from one or more contractors.

Efficient Energy Systems

Our EES business segment addresses the increasing economic, environmental and energy security value of electric transportation solutions.

Industry Background

Electric Vehicle Charging Systems

Electric and advanced hybrid electric vehicles require on-board battery packs to provide the electricity that powers their operation. These battery packs range in size, weight and energy storage capacity. As drivers operate electric vehicles, their battery packs discharge electricity similar to the way an internal combustion vehicle's gasoline tank supplies fuel to the engine as it is driven. Upon discharging the battery pack, the driver of an electric vehicle must either replace it with a fully charged pack, if it is removable, or recharge the pack while it remains in the vehicle. Because of the differences in battery size and composition, as well as the manner in which each vehicle is operated, a variety of charging systems exist to support these vehicles. These charging systems range from relatively slow charging devices that require many hours to completely recharge a battery pack to extremely fast chargers that can do so in a very short amount of time.

Passenger and Fleet Electric Vehicle Charging Systems

Numerous factors contribute to a growing interest among consumers, governments and automakers in vehicles that do not rely on fossil fuels. These factors include:

concerns regarding the environmental impact of resource extraction and carbon emissions associated with fossil fuel-based transportation;

growing awareness of the geopolitical and economic costs associated with the current dependence on petroleum imports;

anticipation of future energy price volatility;

the increasing demand for automobiles in large, rapidly growing markets such as China and India and the resulting anticipated growth in demand for fossil fuels; and

increasing government and private investments in "clean" technologies.

In response to these factors numerous automotive manufacturers around the world are developing and introducing modern EVs for everyday consumer and fleet transportation. Vehicles in this class incorporate battery electric drive systems either in a dedicated format in which an onboard battery pack supplies electricity to one or more electric motors, or in an advanced hybrid design, in which an onboard battery pack provides electricity to an electric motor, and a small onboard internal combustion engine recharges the battery as needed. An EV requires that its battery pack be recharged from an external power source or be replaced with a fully charged battery pack. An advanced hybrid EV does not require recharging from an external power source because an onboard gasoline powered internal

Table of Contents

combustion engine recharges the battery pack, but using an external power source can minimize gasoline consumption and vehicle carbon emissions.

Most EVs will likely be recharged using external systems installed at home, work and at public places such as shopping centers, supermarkets and locations similar to gasoline stations. With the first new consumer electric vehicle models now deployed and additional models scheduled to follow there exists a need for the implementation of charging infrastructure to enable their safe, reliable and practical recharging.

The rate at which a passenger electric vehicle battery pack can be recharged depends on its size, the capacity of the vehicle's onboard controller to invert electricity to the proper format for storage in a battery pack, its ability to receive high current charging and the amount of power available. Electric vehicle charging systems may be segmented into three general categories.

Level	Infrastructure Requirement	Recharge Time
Level 1	Power cord with safety features that plugs into a dedicated 120-volt AC outlet	Capable of slow recharge that could require up to 24 hours or more for certain battery packs
Level 2, known as Electric Vehicle Supply Equipment	Requires professional installation of a dedicated 240-volt AC circuit	Capable of fully recharging most battery packs in six to eight hours
Level 3, DC or fast charge	Typically requires installation onto a three-phase, 480-volt AC circuit	Capable of fully recharging battery packs designed to accept such a charge in minutes

We believe that broad adoption of passenger electric vehicles will require a mix of these types of charging systems, distributed so as to make them accessible to drivers when and where they need them. The adoption of passenger electric vehicles also necessitates supporting services, such as: experienced electrical assessment and installation capability, the integration of EVs and charging systems into smart grids and the ability to monitor and manage the use of electricity and provide for various payment methods and plans such as subscription and credit card point-of-sale.

Industrial Electric Vehicle Charging Systems

While the broad availability of passenger electric vehicles is fairly recent, industrial electric vehicles have been in use extensively for decades. In industrial environments such as factories, distribution centers and airports, fast charge technology, which charges a battery with a high electrical current while the battery remains in the vehicle, eliminates the need for frequent battery changing and a dedicated battery room. This approach increases productivity, reduces operating costs and improves facility safety. The earliest adopters of fast charge technology include the automotive and air transportation industries. Large food and retail industry customers now also utilize fast charge technology.

Industrial electric vehicles rely on large onboard batteries that can consume up to 17 cubic feet and weigh up to 3,500 pounds. In multi-shift fleet operations traditional slow charging systems require users to exchange vehicle batteries throughout the day because these batteries discharge their energy through vehicle usage and there is insufficient vehicle downtime to recharge them during a shift. As a result, drivers must leave their work areas when the battery reaches a low state of charge and drive to a dedicated battery changing room, which often occupies valuable floor space and is frequently located far from a driver's work area. The driver, or in some cases a dedicated battery attendant, must then remove the battery from the vehicle, place it on a storage rack, connect it to a conventional battery charger, identify a fully-charged battery, move it into the vehicle's battery compartment and reconnect the battery to the motor before the driver may return to the work area. These battery changes take place every day in facilities around the world, resulting in reduced material movement and increased

Table of Contents

operating costs. Furthermore, depending on the type of battery, conventional battery chargers can require up to eight hours to recharge the battery, which then must cool for up to an additional eight hours before it is ready to be used again. Consequently, depending on vehicle usage and the number of shifts in an operation, a fleet may require more than one battery per vehicle, which necessitates additional storage space, chargers and maintenance time. Moreover, the high levels of heat generated by conventional battery chargers during their normal use can cause excessive evaporation of the water contained in the battery and damage to the battery's components. Over time, this evaporation of fluid and damage to components result in battery degradation and adversely affect the battery's life.

Power Cycling and Test Systems

Developers and manufacturers of electric and hybrid electric vehicles typically conduct a variety of tests on the electric propulsion and energy storage systems that convert electricity to motion. These tests include simulating the consumption, conversion and storage of electricity through a range of operating scenarios, and include long-term testing to simulate the rigors of real-world driving. Developers of battery packs, electric motors and fuel cells also test their devices to validate design hypotheses and identify potential operating issues. Global interest in electric transportation solutions, including electric and hybrid electric vehicles, has increased and has served as a driver of increased demand for electric vehicle and component test systems. This demand spans commercial, government, military and university research and development labs as well as commercial manufacturing facilities as more funding and attention are focused on clean transportation.

Our EES Solutions

EES Products

Our EES business segment produces electric transportation and industrial productivity solutions for commercial, consumer and government customers, develops new potential electric transportation solutions and performs contract engineering services. These solutions consist of: electric vehicle charging systems, services and related solutions for passenger and fleet vehicles, PosiCharge industrial electric vehicle charging systems for electric material handling vehicles and airport ground support equipment, and power cycling and test systems for developers and manufacturers of EVs as well as battery packs, electric motors and fuel cells. For the fiscal years ended April 30, 2012, 2011 and 2010, EES sales accounted for 16%, 15% and 10%, respectively, of our revenue. We believe that the markets for our electric vehicle charging systems and power cycling and test systems continue to develop and that continued diversification of our customer base and the increasing adoption of electric vehicles will support increased penetration into target markets.

Passenger and Fleet Electric Vehicle Charging Systems

In response to automakers' plans to introduce EVs and broader trends favoring electric transportation, we have developed solutions to support the adoption and use of EVs from nearly every major automaker and many startups worldwide. Our initial EV charging technology emerged from our development of the GM Impact, the first modern EV. Over two decades we improved the technology, deployed it to industrial markets, and adapted it for the current generation of EVs. We believe that most EV drivers will charge their vehicles overnight at their homes. For those without a charging location at home or who make trips beyond the range of their vehicle's battery pack, public charging infrastructure will be required. Our strategy is to offer a full solution of charging infrastructure, including overnight home chargers, public chargers, public fast chargers, installation services, data collection systems and communications through multiple wired and wireless data communications options. We offer an integrated solution designed to enable the broad adoption and the practical use of electric and hybrid electric vehicles. From home charging to "pay at the pump" fast charging in

Table of Contents

minutes, our goal is to enable drivers to use electric vehicles as practical alternatives to gasoline-powered automobiles.

A component of our strategy is to develop relationships across multiple channels that lever our strengths and provide complementary pathways to market. We have announced several such agreements to date with leading auto manufacturers, energy companies, state and municipal governments and an electric component distributor.

We believe these early successes represent a valuable position from which to expand our charging infrastructure footprint in the United States and globally. We continue to work in the United States and internationally with automakers, utilities and government agencies at multiple levels as well as with private industry to explore business models and to promote our solutions.

In addition to the thousands of the "Level 2" charging systems we have deployed in North America, we have also begun to deploy our EV fast charging systems, which we view as a powerful tool that can help enable the broader adoption of EVs in two main categories:

Passenger Electric Vehicles. A network of fast charging systems would ensure that EV drivers have access to a complete battery recharge in minutes, and that advanced hybrid EV drivers could drive more miles in electric mode, thereby reducing emissions and consuming less gasoline or diesel, which are typically significantly more expensive than electricity.

Fleet Electric Vehicles. Fleet EVs could come in multiple vehicle types and duty cycles, from inner-city taxis and buses to medium range delivery vans and utility repair vehicles. A few fast charging systems installed in a maintenance yard or a network of systems in the city could help fleet operators maintain throughput while reducing emissions and fuel expenses.

Passenger and Fleet Electric Vehicle Charging Services

We have created and are expanding a network of licensed electrical contracting firms to provide installation and repair services for our growing footprint of passenger and fleet electric vehicle charging systems. We identify, qualify, select, train and monitor the performance of these contractors and equip them with proprietary tools and web-based information systems to facilitate the successful installation and support of our charging systems as this market opportunity grows. We intend to expand this network nationwide to support customers across the United States. Our 24-hour customer service center provides support to answer customer inquiries and promote a high level of customer satisfaction.

In addition to supplying and installing passenger and fleet EV charging systems that do not incorporate communications capabilities in accordance with automakers' requirements, we also supply and install charging systems that possess the ability to connect wirelessly with a web-accessible, centralized database for two-way communication and asset management. This capability enables us to provide an integrated, networked solution to support subscriber and utility business models. Our charging systems incorporate meters that provide electricity consumption information for analysis and revenue generation and permit remote management to enable time-of-use operation.

Our products and services can readily be customized to support our partners' marketing programs. This capability is designed to enable automakers, utilities, government agencies and other businesses to deliver a branded solution to their customers that will enhance their customer relationships.

Table of Contents

PosiCharge Industrial Electric Vehicle Charging System

Developed from our work on electric and hybrid electric vehicles and advanced battery systems in the 1990s, PosiCharge industrial electric vehicle charging systems quickly and safely recharge industrial vehicle batteries while the batteries remain in the vehicle during regularly scheduled breaks and other times when the vehicle is not in use, thereby maintaining a sufficient level of energy throughout the workday. By eliminating battery changing, PosiCharge systems improve supply chain productivity by returning time to the vehicle operator to complete more work. Furthermore, because of their advanced efficient energy capabilities, PosiCharge systems can reduce the amount of electricity required to support electric industrial vehicles by several hundred dollars per year per vehicle, as compared to less efficient conventional battery chargers. Many customers who implement our charging systems in their facilities are able to re-purpose the battery changing room floor space for more productive activities and create a safer working environment, as drivers or battery attendants no longer need to exchange large lead-acid batteries continually.

The proprietary battery charging algorithms built into PosiCharge systems, which are tailored to battery type, brand and size, maximize the rate at which energy is delivered into the battery while minimizing heat generation and its damaging effects on the battery's internal components. We developed these algorithms over years of advanced battery testing and usage. We believe our work to develop these algorithms contributed to the major battery manufacturers offering warranties for the use of their batteries with our charging systems, which provided a critical assurance to customers that our rapid charging systems would not harm their batteries. In combination with a weekly equalization charge that balances all the cells within the battery pack, our "intelligent" charging process enhances the performance of batteries. We believe that competing rapid and conventional charging systems, which lack our current and voltage regulating tailored charge algorithms and monitoring capabilities, may actually contribute to lower battery performance and lifespan, ultimately resulting in higher battery costs and degraded vehicle performance.

We project that PosiCharge system customers typically begin to realize cost savings when compared to battery changing within the first 12 months of operation. Operators of large fleets of electric industrial vehicles who use PosiCharge systems in multiple settings, including factories, distribution centers, cold storage facilities and airport tarmacs, include Ford Motor Company, Continental Airlines, Inc., Total Logistics Control and IKEA.

Our PosiCharge systems and support products range from lower-power devices for smaller, less heavily-used vehicles to high-power devices for large, heavy-duty vehicles, and are capable of charging from one to 16 vehicles concurrently, depending on the needs of the operation. Included in our product line are systems for indoor and outdoor use, such as for airport ground support equipment. We also supply various accessories to help our customers integrate PosiCharge systems into their operations.

Our PosiCharge offering is focused on providing new smart, efficient products to enhance the charging process and help customers maximize the life of their industrial fleets by managing and extending the life of their batteries, and by increasing the productivity of their drivers.

Power Cycling and Test Systems

We supply a line of power cycling and test systems to research and development organizations that focus on electric propulsion systems, electric generation systems and electricity storage systems. Customers employ these electric load and sink systems to test batteries, electric motors and fuel cell systems.

Our line of DC test systems has the flexibility to perform a variety of electric load tests. With a full power range (+/-5kW to +/-800kW) of bi-directional DC equipment, our power cycling and test systems can handle a wide variety of DC supply or load requirements from lead acid to the latest

Table of Contents

lithium-ion batteries to fuel cells with integrated power electronics. In addition, these systems can emulate any drive train component, enabling the testing of individual components or partial drive trains accurately and realistically, allowing hardware-in-the-loop testing. We also offer flexible software control options via the C language Remote Operation System and Windows-based languages such as LabVIEW or CAN.

EES Technology, Research and Development

The following list highlights a number of our key EES technological capabilities:

battery management and testing;

power electronics and controls;

efficient electric drive systems and controls;

fuel cell system integration and testing;

high-density energy packaging;

efficient electric power generation, storage and management;

charging algorithms and thermal management;

on/off grid controls and controls integration;

system integration and optimization; and

web-based real-time data collection and reporting.

EES Sales and Marketing

Passenger and Fleet Electric Vehicle Charging Systems

As the market for EVs emerges, we are pursuing numerous potential sales channels for our products and services. We continue to seek to partner with auto manufacturers, utilities, government agencies and private enterprises, both domestically and abroad, to position ourselves for the potential demand for charging solutions associated with electric and hybrid electric vehicle adoption. We also have the capability to sell directly to consumers. We have a nationwide network of licensed electrical contractors whom we train and certify to install and service home and public charging systems. To enable this installation and service network we have developed an e-commerce platform to integrate customers' orders, inventory management, dispatching and provisioning, billing and product and service traceability. This platform, along with our nationwide network is designed to support our growth as we pursue numerous electric vehicle charging opportunities.

Industrial Electric Vehicle Charging Systems

We primarily sell our PosiCharge industrial electric vehicle charging systems through a dedicated, direct sales force complemented by a network of industrial battery and lift-truck dealers. The sales team targets large entities with the potential for domestic and international enterprise adoption of our solutions. The sales team also coordinates distribution of PosiCharge systems through battery and lift-truck dealers. These dealers' relationships with, and proximity to, our customers' facilities enable them to sell our solutions and provide post-sale service to our customers. We believe that these dealers are well suited to address the large number of smaller and geographically dispersed customers with

Edgar Filing: AeroVironment Inc - Form 10-K

industrial vehicle fleets. When evaluating a facility for its ability to benefit from PosiCharge systems, we typically perform a detailed analysis of the customer's operations. This analysis allows us to quantify the

Table of Contents

benefit projected for a PosiCharge system implementation, helping customers to determine for themselves if the business case is sufficiently compelling.

Power Cycling and Test Systems

We sell our power cycling and test systems through a dedicated, direct sales force and through a network of international distributors and representatives who have access to the research and development and manufacturing organizations that procure and use these types of systems. Given the distances involved, we enable and often rely on our international distributors to provide service in support of our customers.

EES Manufacturing and Operations

We perform assembly and testing of our power cycling and test systems at a 20,000 square foot, ISO 9001:2008 certified facility. We designed this facility for flexibility, using a work cell model for final assembly, and have included fixtures optimized for final testing. We utilize contract manufacturing for the production of the majority of our PosiCharge industrial electric vehicle charging systems. We have also implemented a contract manufacturing strategy to support our passenger and fleet electric and hybrid electric vehicle charging systems business opportunity.

EES Competition

Competitors in the emerging market for passenger and fleet electric and hybrid electric vehicle charging systems include focused charging system suppliers such as Coulomb Technologies Inc., ECotality Inc. and ClipperCreek Inc. and large industrial electrical device suppliers such as Eaton Corporation, General Electric Company, Leviton Manufacturing Co., Inc., Schneider Electric SA, The ABB Group and Siemens AG.

The primary direct competitors to PosiCharge systems are other fast charge suppliers, including Aker Wade Power Technologies LLC, PowerDesigners, LLC and ECotality Inc. Some of the major industrial motive battery suppliers have aligned themselves with fast charge suppliers. In addition, our PosiCharge systems compete against the traditional method of battery changing. Competitors in this area include suppliers of battery changing equipment and infrastructure, designers of battery changing rooms, battery manufacturers and dealers who may experience reduced sales volume because PosiCharge systems reduce or eliminate the need for extra batteries.

Direct competitors for our power cycling and test systems include Bitrode Corporation and Digatron Firing Circuits.

We believe that the principal competitive factors in the markets for our products and services include product performance, features, acquisition cost, lifetime operating cost, including maintenance and support, ease of use, integration with existing equipment, quality, reliability, customer support, brand and reputation.

For additional financial information with respect to our UAS and EES segments, please see Note 13 to our consolidated financial statements, which are included in Item 8, "Financial Statements and Supplementary Data" of this Annual Report.

Item 1A. Risk Factors.

We rely heavily on sales to the U.S. government, particularly to agencies of the Department of Defense.

Historically, a significant portion of our total sales and substantially all of our small UAS sales have been to the U.S. government and its agencies. Sales to the U.S. government, either as a prime contractor or subcontractor, represented approximately 83% of our revenue for the fiscal year ended

Table of Contents

April 30, 2012. The DoD, our principal U.S. government customer, accounted for approximately 71% of our revenue for the fiscal year ended April 30, 2012. We believe that the success and growth of our business for the foreseeable future will continue to depend on our ability to win government contracts, in particular from the DoD. Many of our government customers are subject to budgetary constraints and our continued performance under these contracts, or award of additional contracts from these agencies, could be jeopardized by spending reductions or budget cutbacks at these agencies. The funding of U.S. government programs is uncertain and dependent on continued congressional appropriations and administrative allotment of funds based on an annual budgeting process. We cannot assure you that current levels of congressional funding for our products and services will continue. Furthermore, all of our contracts with the U.S. government are terminable by the U.S. government at will. A significant decline in government expenditures generally, or with respect to programs for which we provide products, could adversely affect our business and prospects. Our operating results may also be negatively impacted by other developments that affect these government programs generally, including the following:

changes in government programs that are related to our products and services;

adoption of new laws or regulations relating to government contracting or changes to existing laws or regulations;

changes in political or public support for security and defense programs;

delays or changes in the government appropriations and budget process;

uncertainties associated with the current global threat environment and other geo-political matters; and

delays in the payment of our invoices by government payment offices.

These developments and other factors could cause governmental agencies to reduce their purchases under existing contracts, to exercise their rights to terminate contracts at-will or to abstain from renewing contracts, any of which would cause our revenue to decline and could otherwise harm our business, financial condition and results of operations.

Military transformation and changes in overseas operational levels may affect future procurement priorities and existing programs, which could limit demand for our UAS.

Following the end of the Cold War, the U.S. military began a transformation of its operational concepts, organizational structure and technologies in an effort to adapt its warfighting capabilities to the new threat environment. The resulting shift in procurement priorities toward achieving these capabilities, together with the operational activity in Afghanistan and Iraq, led to an increase in demand for our small UAS. We cannot predict whether current or future changes in priorities due to defense transformation or a change in the threat environment will afford new opportunities for our small UAS business in terms of existing, additional or replacement programs. Furthermore, we cannot predict whether or to what extent this defense transformation or current overseas operational levels will continue. If defense transformation or overseas operations cease or slow down, then our business, financial condition and results of operations could be impacted.

We operate in evolving markets, which makes it difficult to evaluate our business and future prospects.

Our UAS, electric vehicle charging systems and other energy technologies are sold in new and rapidly evolving markets. Accordingly, our business and future prospects may be difficult to evaluate. We cannot accurately predict the extent to which demand for our products will increase, if at all. The

Edgar Filing: AeroVironment Inc - Form 10-K

Table of Contents

challenges, risks and uncertainties frequently encountered by companies in rapidly evolving markets could impact our ability to do the following:

- generate sufficient revenue to maintain profitability;
- acquire and maintain market share;
- manage growth in our operations;
- develop and renew contracts;
- attract and retain additional engineers and other highly-qualified personnel;
- successfully develop and commercially market new products;
- adapt to new or changing policies and spending priorities of governments and government agencies; and
- access additional capital when required and on reasonable terms.

If we fail to address these and other challenges, risks and uncertainties successfully, our business, results of operations and financial condition would be materially harmed.

We face competition from other firms, many of which have substantially greater resources.

The defense industry is highly competitive and generally characterized by intense competition to win contracts. Our current principal small UAS competitors include Elbit Systems Ltd., L-3 Communications Holdings Inc. and Lockheed Martin Corporation. We do not view large UAS such as Northrop Grumman Corporation's *Global Hawk*, General Atomics, Inc.'s *Predator* and related products, The Boeing Company's *ScanEagle* and Textron Inc.'s *Shadow* as direct competitors because they perform different missions, do not typically deliver their information directly to front-line ground forces, and are not hand launched and controlled, although we cannot be certain that these platforms will not become direct competitors in the future. Some of these firms have substantially greater financial, management, research and marketing resources than we have. Our UAS services business also faces competition from smaller businesses that can provide training and logistics services for multiple UAS platforms, including our small UAS.

The primary direct competitors to our PosiCharge industrial electric vehicle charging system business are other fast charge suppliers, including Aker Wade Power Technologies LLC, PowerDesigners, LLC and ECotality Inc., as well as industrial battery manufacturers who distribute fast charging systems from these suppliers. The primary direct competitors to our power cycling and test system business are other test system suppliers, including Bitrode Corporation and Digatron Firing Circuits. Our primary competitors in the emerging market for passenger and fleet electric vehicle charging systems include charging system suppliers such as Coulomb Technologies Inc., ECotality Inc. and ClipperCreek Inc. As the passenger and fleet electric and hybrid electric vehicle charging systems market grows we expect that certain charging products may begin to be viewed as commodities, and we therefore anticipate increasing competition from various charging system suppliers and large industrial electrical device suppliers such as Eaton Corporation, General Electric Company, Leviton Manufacturing Co., Inc., Schneider Electric SA, The ABB Group and Siemens AG. Our electric vehicle charging system installation and support services business faces competition from local licensed electricians as well as larger electrical service providers.

Our competitors may be able to provide customers with different or greater capabilities or benefits than we can provide in areas such as technical qualifications, past contract performance, geographic presence, price and the availability of key professional personnel, including those with security clearances. Furthermore, many of our competitors may be able to utilize their substantially greater resources and economies of scale to develop competing products and technologies, manufacture in high

Table of Contents

volumes more efficiently, divert sales away from us by winning broader contracts or hire away our employees by offering more lucrative compensation packages. Small business competitors in our services businesses may be able to offer more cost competitive services, due to their lower overhead costs, and take advantage of small business incentive and set-aside programs for which we are ineligible. In the event that the market for small UAS or electric vehicle charging systems and services expands, we expect that competition will intensify as additional competitors enter the market and current competitors expand their product lines. In order to secure contracts successfully when competing with larger, well-financed companies, we may be forced to agree to contractual terms that provide for lower aggregate payments to us over the life of the contract, which could adversely affect our margins. In addition, larger diversified competitors serving as prime contractors may be able to supply underlying products and services from affiliated entities, which would prevent us from competing for subcontracting opportunities on these contracts. Our failure to compete effectively with respect to any of these or other factors could have a material adverse effect on our business, prospects, financial condition or operating results.

If the UAS, electric vehicle charging and power cycling and test systems markets do not experience significant growth, if we cannot expand our customer base or if our products do not achieve broad acceptance, then we may not be able to achieve our anticipated level of growth.

For the fiscal year ended April 30, 2012, our UAS and EES businesses accounted for 84% and 16% of our total revenue, respectively. We cannot accurately predict the future growth rates or sizes of these markets. Demand for our products may not increase, or may decrease, either generally or in specific markets, for particular types of products or during particular time periods. We believe the market for electric vehicle charging is nascent. Moreover, there are only a limited number of major programs under which the U.S. military, our primary customer, is currently funding the development or purchase of our UAS. Although we are seeking to expand our customer base to include foreign governments, domestic non-military agencies and commercial customers, we cannot assure you that our efforts will be successful. The expansion of the UAS, electric vehicle charging and power cycling and test systems markets in general, and the market for our products in particular, depends on a number of factors, including the following:

customer satisfaction with these types of systems as solutions;

the cost, performance and reliability of our products and products offered by our competitors;

customer perceptions regarding the effectiveness and value of these types of systems;

the availability and adoption of electric and hybrid electric vehicles;

limitations on our ability to market our UAS products and services outside the United States due to U.S. government regulations;

obtaining timely regulatory approvals, including, with respect to our small UAS business, access to airspace and wireless spectrum; and, with respect to our electric vehicle charging business, proper certifications and licenses to offer and perform electrical installation work; and

marketing efforts and publicity regarding these types of systems.

Even if UAS, electric vehicle charging and power cycling and test systems gain wide market acceptance, our products may not adequately address market requirements and may not continue to gain market acceptance. If these types of systems generally, or our products specifically, do not gain wide market acceptance, then we may not be able to achieve our anticipated level of growth and our revenue and results of operations would suffer.

Table of Contents

If critical components of our products that we currently purchase from a small number of suppliers or raw materials used to manufacture our products become scarce or unavailable, then we may incur delays in manufacturing and delivery of our products, which could damage our business.

We obtain hardware components and various subsystems from a limited group of suppliers. We do not have long-term agreements with any of these suppliers that obligate them to continue to sell components or products to us. Our reliance on these suppliers involves significant risks and uncertainties, including whether our suppliers will provide an adequate supply of required components of sufficient quality, will increase prices for the components and will perform their obligations on a timely basis.

In addition, certain raw materials and components used in the manufacture of our products are periodically subject to supply shortages, and our business is subject to the risk of price increases and periodic delays in delivery. Similarly, the market for electronic components is subject to cyclical reductions in supply. If we are unable to obtain components from third-party suppliers in the quantities and of the quality that we require, on a timely basis and at acceptable prices, then we may not be able to deliver our products on a timely or cost-effective basis to our customers, which could cause customers to terminate their contracts with us, increase our costs and seriously harm our business, results of operations and financial condition. Moreover, if any of our suppliers become financially unstable, then we may have to find new suppliers. It may take several months to locate alternative suppliers, if required, or to redesign our products to accommodate components from different suppliers. We may experience significant delays in manufacturing and shipping our products to customers and incur additional development, manufacturing and other costs to establish alternative sources of supply if we lose any of these sources or are required to redesign our products. We cannot predict if we will be able to obtain replacement components within the time frames that we require at an affordable cost, if at all.

Any efforts to expand our offerings beyond our current markets may not succeed, which could negatively impact our operating results.

We have focused on selling our small UAS to the U.S. military, our industrial electric vehicle fast charging and test systems to large industrial electric vehicle fleet operators primarily in North America, our power cycling and test systems primarily to research and development facilities in North America, and our electric vehicle charging systems to domestic commercial customers, distributors and consumers. We plan, however, to seek to expand our UAS sales into other government and commercial markets, and our industrial electric vehicle charging and power cycling and test systems and electric vehicle charging systems sales into international markets. Efforts to expand our product offerings beyond the markets that we currently serve may divert management resources from existing operations and require us to commit significant financial resources to unproven businesses that may not generate additional sales, either of which could significantly impair our operating results.

Failure to obtain necessary regulatory approvals from the FAA or other governmental agencies, or limitations put on the use of small UAS in response to public privacy concerns, may prevent us from expanding the sales of our small UAS to non-military customers in the United States.

In 2006, the FAA issued a clarification of its existing policies stating that, in order to engage in public use of small UAS in the U.S. National Airspace System, a public operator must obtain a COA from the FAA, or fly in restricted airspace. The FAA's COA approval process requires that the public operator certify the airworthiness of the aircraft for its intended purpose, that a collision with another aircraft or other airspace user is extremely improbable, that the small unmanned aircraft system complies with appropriate cloud and terrain clearances and that the operator or spotter of the small unmanned aircraft system is generally within one half-mile laterally and 400 feet vertically of the small unmanned aircraft system while in operation. Furthermore, the FAA's clarification of existing policy

Table of Contents

stated that the rules for radio-controlled hobby aircraft do not apply to public or commercial use of small UAS.

On February 14, 2012, the FAA Modernization and Reform Act of 2012 was enacted, establishing various deadlines for the FAA to allow expanded use of small UAS for both public and commercial applications. In response to this direction, the FAA and the DOJ established an agreement on May 14, 2012 that, if implemented in a timely and efficient manner, may allow more use of small UAS by U.S. law enforcement agencies. The FAA has also drafted updated regulations specifically for small UAS commercial operations and is in the process of obtaining approval to release for public comment. However, we cannot assure you that these actions will result in the expanded use of our small UAS by law enforcement or other non-military government agencies or commercial entities and we may not be able to expand our sales of small UAS beyond our military customers, which could harm our business prospects.

In addition, there exists public concern regarding the privacy implications of U.S. commercial and law enforcement use of small UAS. This concern has included calls to develop explicit written policies and procedures establishing usage limitations. We cannot assure you that the response from regulatory agencies, customers and privacy advocates to these concerns will not delay or restrict the adoption of small UAS by non-military customers.

The markets in which we compete are characterized by rapid technological change, which requires us to develop new products and product enhancements, and could render our existing products obsolete.

Continuing technological changes in the market for our products could make our products less competitive or obsolete, either generally or for particular applications. Our future success will depend upon our ability to develop and introduce a variety of new capabilities and enhancements to our existing product offerings, as well as introduce a variety of new product offerings, to address the changing needs of the markets in which we offer our products. Delays in introducing new products and enhancements, the failure to choose correctly among technical alternatives or the failure to offer innovative products or enhancements at competitive prices may cause existing and potential customers to purchase our competitors' products.

If we are unable to devote adequate resources to develop new products or cannot otherwise successfully develop new products or enhancements that meet customer requirements on a timely basis, our products could lose market share, our revenue and profits could decline, and we could experience operating losses.

The electric vehicle charging industry is especially dynamic. For example, a single fast charge connector communication protocol standard for the U.S. market has not yet been established, although other standards are emerging throughout the world. If we are unable to accurately anticipate fast charge standards that are adopted in our potential markets or develop products that meet such standards quickly enough to meet customer requirements, our electric vehicle charging systems could lose market share, our revenue and profits could decline, and we could experience operating losses.

We expect to incur substantial research and development costs and devote significant resources to identifying and commercializing new products, which could significantly reduce our profitability and may never result in revenue to us.

Our future growth depends on penetrating new markets, adapting existing products to new applications, and introducing new products that achieve market acceptance. We plan to incur substantial research and development costs as part of our efforts to design, develop and commercialize new products and enhance existing products. We spent \$31.0 million, or 10% of our revenue, in our fiscal year ended April 30, 2012 on research and development activities and expect to continue to spend significant funds on research and development in the future. Because we account for research

Table of Contents

and development as an operating expense, these expenditures will adversely affect our earnings in the future. Further, our research and development programs may not produce successful results, and our new products may not achieve market acceptance, create additional revenue or become profitable, which could materially harm our business, prospects, financial results and liquidity.

If we are unable to manage our growth, our business could be adversely affected.

Our headcount and operations have grown rapidly over the last several years. This rapid growth has placed, and will continue to place, a strain on our management and our administrative, operational and financial infrastructure. We anticipate further growth of headcount and facilities will be required to address expansion in our product offerings and the geographic scope of our customer base. Our success will depend in part upon the ability of our senior management to manage this growth effectively. To do so, we must continue to hire, train, manage and integrate a significant number of qualified managers and engineers. If our new employees perform poorly, or if we are unsuccessful in hiring, training, managing and integrating these new employees, or retaining these or our existing employees, then our business may suffer.

For us to continue our growth, we must continue to improve our operational, financial and management information systems. If we are unable to manage our growth while maintaining our quality of service, or if new systems that we implement to assist in managing our growth do not produce the expected benefits, then our business, prospects, financial condition or operating results could be adversely affected.

Our earnings and profit margins may decrease based on the mix of our contracts and programs and other factors related to our contracts.

In general, we perform our production work under fixed-price contracts and our repair and customer-funded research and development work under cost-plus-fee contracts. Under fixed-price contracts, we perform services under a contract at a stipulated price. Under cost-plus-fee contracts, which are subject to a contract ceiling amount, we are reimbursed for allowable costs and paid a fee, which may be fixed or performance based. We typically experience lower profit margins under cost-plus-fee contracts than under fixed-price contracts, though fixed-price contracts have higher risks. In general, if the volume of services we perform under cost-plus-fee contracts increases relative to the volume of services we perform under fixed-price contracts, we expect that our operating margin will suffer. In addition, our earnings and margins may decrease depending on the costs we incur in contract performance, our achievement of other contract performance objectives and the stage of our performance at which our right to receive fees, particularly under incentive and award fee contracts, is finally determined.

Our senior management and key employees are important to our customer relationships and overall business.

We believe that our success depends in part on the continued contributions of our senior management and key employees. We rely on our executive officers, senior management and key employees to generate business and execute programs successfully. In addition, the relationships and reputation that members of our management team and key employees have established and maintain with government defense personnel contribute to our ability to maintain good customer relations and to identify new business opportunities. We do not have employment agreements with any of our executive officers or key employees, and these individuals could terminate their employment with us at any time. The loss of any of our executive officers, members of our senior management team or key employees could significantly delay or prevent the achievement of our business objectives and could materially harm our business and customer relationships and impair our ability to identify and secure new contracts and otherwise manage our business.

Table of Contents

We must recruit and retain highly-skilled employees to succeed in our competitive business.

We depend on our ability to recruit and retain employees who have advanced engineering and technical services skills and who work well with our customers. These employees are in great demand and are likely to remain a limited resource in the foreseeable future. If we are unable to recruit and retain a sufficient number of these employees, then our ability to maintain our competitiveness and grow our business could be negatively affected. In addition, because of the highly technical nature of our products, the loss of any significant number of our existing engineering personnel could have a material adverse effect on our business and operating results. Moreover, some of our U.S. government contracts contain provisions requiring us to staff a program with certain personnel the customer considers key to our successful performance under the contract. In the event we are unable to provide these key personnel or acceptable substitutes, the customer may terminate the contract.

Our business may be dependent upon our employees obtaining and maintaining required security clearances, as well as our ability to obtain security clearances for the facilities in which we perform sensitive government work.

Certain of our U.S. government contracts require our employees to maintain various levels of security clearances, and we are required to maintain certain facility security clearances complying with DoD requirements. The DoD has strict security clearance requirements for personnel who work on classified programs. Obtaining and maintaining security clearances for employees involves a lengthy process, and it is difficult to identify, recruit and retain employees who already hold security clearances. If our employees are unable to obtain security clearances in a timely manner, or at all, or if our employees who hold security clearances are unable to maintain the clearances or terminate employment with us, then a customer requiring classified work could terminate the contract or decide not to renew it upon its expiration. In addition, we expect that many of the contracts on which we will bid will require us to demonstrate our ability to obtain facility security clearances and employ personnel with specified types of security clearances. To the extent we are not able to obtain facility security clearances or engage employees with the required security clearances for a particular contract, we may not be able to bid on or win new contracts, or effectively rebid on expiring contracts.

Cost overruns on our contracts could subject us to losses, decrease our operating margins and adversely affect our future business.

Fixed-price contracts (including both government and commercial contracts) represented approximately 76% of our revenue for the fiscal year ended April 30, 2012. If we fail to anticipate technical problems, estimate costs accurately or control costs during our performance of fixed-price contracts, then we may incur losses on these contracts because we absorb any costs in excess of the fixed price. Under cost-plus-fee contracts, if costs exceed the contract ceiling or are not allowable under the provisions of the contract or applicable regulations, then we may not be able to obtain reimbursement for all such costs. Under time and materials contracts, we are paid for labor at negotiated hourly billing rates and for certain expenses. Under each type of contract, if we are unable to control the costs we incur in performing under the contract, then our financial condition and results of operations could be materially adversely affected. Cost overruns also may adversely affect our ability to sustain existing programs and obtain future contract awards.

Our products are complex and could have unknown defects or errors, which may give rise to claims against us, diminish our brand or divert our resources from other purposes.

Our UAS rely on complex avionics, sensors, user-friendly interfaces and tightly-integrated, electromechanical designs to accomplish their missions, and our electric vehicle charging and power cycling and test systems often rely upon the application of intellectual property for which there may have been little or no prior commercial application. Despite testing, our products have contained

Table of Contents

defects and errors and may in the future contain defects, errors or performance problems when first introduced, when new versions or enhancements are released, or even after these products have been used by our customers for a period of time. These problems could result in expensive and time-consuming design modifications or warranty charges, delays in the introduction of new products or enhancements, significant increases in our service and maintenance costs, exposure to liability for damages, damaged customer relationships and harm to our reputation, any of which could materially harm our results of operations and ability to achieve market acceptance. In addition, increased development and warranty costs could be substantial and could reduce our operating margins.

The existence of any defects, errors, or failures in our products or the misuse of our products could also lead to product liability claims or lawsuits against us. A defect, error or failure in one of our UAS could result in injury, death or property damage and significantly damage our reputation and support for our UAS in general. We anticipate this risk will grow as our UAS begin to be used in U.S. domestic airspace and urban areas. While our PosiCharge industrial electric vehicle charging systems include certain safety mechanisms, these systems can deliver up to 600 amps of current in their application, and the failure, malfunction or misuse of these systems could result in injury or death. Our passenger and fleet electric and hybrid electric vehicle charging systems also have the potential to cause injury, death or property damage in the event that they are misused, malfunction or fail to operate properly due to unknown defects or errors.

Although we maintain insurance policies, we cannot assure you that this insurance will be adequate to protect us from all material judgments and expenses related to potential future claims or that these levels of insurance will be available in the future at economical prices or at all. A successful product liability claim could result in substantial cost to us. Even if we are fully insured as it relates to a claim, the claim could nevertheless diminish our brand and divert management's attention and resources, which could have a negative impact on our business, financial condition and results of operations.

Our future profitability is dependent upon achieving cost reductions and projected economies of scale from increasing manufacturing quantities of our electric vehicle charging systems. Failing to achieve such reductions in manufacturing costs and projected economies of scale could materially adversely affect our business.

We have limited experience manufacturing our electric vehicle charging systems in high volume. We do not know whether or when we will be able to develop efficient, low-cost manufacturing capabilities and processes that will enable us to manufacture these products in commercial quantities while meeting the volume, speed, quality, price, engineering, design and production standards required to successfully market our products. Our failure to develop such manufacturing processes and capabilities in locations that can efficiently service our markets would have a material adverse effect on our business, financial condition, results of operations and prospects. We recently began volume production of electric vehicle charging systems in Taiwan, Italy and the United States. Historically, we have produced PosiCharge industrial electric vehicle charging systems and power cycling and test systems only in limited production quantities. Our future profitability is, in part, dependent upon achieving increased savings from volume purchases of raw materials and component parts, achieving acceptable manufacturing yield and capitalizing on machinery efficiencies. We expect our suppliers to experience a sharp increase in demand for their products. As a result, we may not have reliable access to supplies that we require or be able to purchase such materials or components at cost effective prices. There is no assurance that we will ever be in a position to realize any material, labor and machinery cost reductions associated with higher purchasing power and higher production levels. Failure to achieve these cost reductions could adversely impact our business and financial results.

Table of Contents

We face significant risks in overseeing our outsourcing of manufacturing processes as well as in the management of our inventory, and failure to properly oversee our manufacturing processes or to effectively manage our inventory levels may result in product recalls or supply imbalances that could harm our business.

We have contracted for the manufacture of certain electric vehicle charging systems with contract manufacturers. We sell these units directly and through distributors, as well as through our own online sales channels. We face significant risks if our contract manufacturers do not perform as expected. If we fail to effectively oversee the manufacturing process, including the work performed by our contract manufacturers, we could suffer from product recalls, poorly performing products and higher than anticipated warranty costs.

In connection with our manufacturing operations, we maintain a finished goods inventory of electric vehicle charging units in various locations, including with third party logistics providers. Due to the long-lead time of our manufacturing cycles, we need to make forecasts of demand and commit significant resources towards manufacturing our electric vehicle charging units. As such, we are subject to significant risks in managing the inventory needs of our business during the year, including estimates of the appropriate demand across our models. Should actual market conditions differ from our estimates, our future results of operations could be materially adversely affected. In the future, we may be required to record write-downs of finished products and materials on-hand and/or additional charges for excess purchase commitments as a result of future changes in our sales forecasts.

Due to the volatile and flammable nature of certain components of our products and equipment, fires or explosions may disrupt our business or cause significant injuries, which could adversely affect our financial results

The development and manufacture of certain of our products involves the handling of a variety of explosive and flammable materials as well as high power equipment. From time to time, these activities may result in incidents that could cause us to temporarily shut down or otherwise disrupt some manufacturing processes, causing production delays and resulting in liability for workplace injuries and/or fatalities. We have safety and loss prevention programs that require detailed reviews of process changes and new operations, along with routine safety audits of operations involving explosive materials, to mitigate such incidents, as well as a variety of insurance policies. However, we cannot ensure that we will not experience such incidents in the future or that any such incidents will not result in production delays or otherwise have a material adverse effect on our business and financial condition.

The operation of UAS in urban environments may be subject to risks, such as accidental collisions and transmission interference, which may limit demand for our UAS in such environments and harm our business and operating results.

Urban environments may present certain challenges to the operators of UAS. UAS may accidentally collide with other aircraft, persons or property, which could result in injury, death or property damage and significantly damage the reputation of and support for UAS in general. While we are aware of only one instance of an accidental collision involving one of our UAS to date, as the usage of UAS has increased, particularly by military customers, the danger of such collisions has increased. Furthermore, the incorporation of our DDL technology into our UAS has increased the number of vehicles which can operate simultaneously in a given area and with this increase has come an increase in the risk of accidental collision. In addition, obstructions to effective transmissions in urban environments, such as large buildings, may limit the ability of the operator to utilize the aircraft for its intended purpose. The risks or limitations of operating UAS in urban environments may limit their value in such environments, which may limit demand for our UAS and consequently materially harm our business and operating results.

Table of Contents

As a manufacturer of electrical vehicle charging products and provider of electrical installation services to consumers, we are subject to various government regulations and may be subject to additional regulations in the future, violation of which could subject us to sanctions or otherwise harm our business. In addition, we could be the subject of future product liability suits or product recalls, which could harm our business.

As a manufacturer of consumer products, we are subject to significant government regulations, including, in the United States, under The Consumer Products Safety Act, as well as under product safety and consumer protection statutes in our international markets. In addition, certain of our electrical contracting services are subject to regulation by various government authorities. While we take all the steps we believe are necessary to comply with these regulations, there can be no assurance that we will be in compliance in the future. Failure to comply could result in sanctions that could have a negative impact on our business, financial condition and results of operations. We may also be subject to involuntary product recalls or may voluntarily conduct a product recall. The costs associated with any future product recalls, individually and in the aggregate in any given fiscal year, could be significant. In addition, any product recall, regardless of direct costs of the recall, may harm consumer perceptions of our products and have a negative impact on our future revenues and results of operations.

Governments and regulatory agencies in the markets where we manufacture and sell products may enact additional regulations relating to product safety and consumer protection in the future, and may also increase the penalties for failure to comply with product safety and consumer protection regulations. In addition, one or more of our customers might require changes in our products, such as the non-use of certain materials, in the future. Complying with any such additional regulations or requirements could impose increased costs on our business. Similarly, increased penalties for non-compliance could subject us to greater expense in the event any of our products were found to not comply with such regulations. Such increased costs or penalties could harm our business.

In addition to government regulation, products that have been or may be developed by us may expose us to potential liability from personal injury or property damage claims by the users of such products. There can be no assurance that a claim will not be brought against us in the future. Any successful claim could significantly harm our business, financial condition and results of operations.

Our quarterly operating results may vary widely.

Our quarterly revenue, cash flow and operating results have and may continue to fluctuate significantly in the future due to a number of factors, including the following:

fluctuations in revenue derived from government contracts, including cost-plus-fee contracts and contracts with a performance-based fee structure;

the size and timing of orders from military and other governmental agencies, including increased purchase requests from government customers for equipment and materials in connection with the U.S. government's fiscal year end, which may affect our quarterly operating results;

the mix of products that we sell in the period;

seasonal fluctuations in customer demand for some of our products or services;

unanticipated costs incurred in the introduction of new products;

fluctuations in the adoption of our products in new markets;

changes in the level of tax credits available for research and development spending;

cancellations, delays or contract amendments by our governmental agency customers; and

changes in policy or budgetary measures that adversely affect our governmental agency customers.

Table of Contents

Changes in the volume of products and services provided under existing contracts and the number of contracts commenced, completed or terminated during any quarter may cause significant variations in our cash flow from operations because a relatively large amount of our expenses are fixed. We incur significant operating expenses during the start-up and early stages of large contracts and typically do not receive corresponding payments in that same quarter. We may also incur significant or unanticipated expenses when contracts expire or are terminated or are not renewed. In addition, payments due to us from government agencies may be delayed due to billing cycles or as a result of failures of governmental budgets to gain congressional and presidential administration approval in a timely manner.

Shortfalls in available external research and development funding could adversely affect us.

We depend on our research and development activities to develop the core technologies used in our UAS and EES products and for the development of our future products. A portion of our research and development activities depends on funding by commercial companies and the U.S. government. U.S. government and commercial spending levels can be impacted by a number of variables, including general economic conditions, specific companies' financial performance and competition for U.S. government funding with other U.S. government-sponsored programs in the budget formulation and appropriation processes. Moreover, the U.S., state and local governments provide energy rebates and incentives to commercial companies, which directly impact the amount of research and development that companies appropriate for energy systems. To the extent that these energy rebates and incentives are reduced or eliminated, company funding for research and development could be reduced. Any reductions in available research and development funding could harm our business, financial condition and operating results.

Volatility and cyclical in the market for electric industrial vehicles could adversely affect us.

Our PosiCharge industrial electric vehicle charging system products are purchased primarily by operators of fleets of electric industrial vehicles, such as forklift trucks and airport ground support equipment. Consequently, our ability to remain profitable depends in part on the varying conditions in the market for electric industrial vehicles. This market is subject to volatility as it moves in response to cycles in the overall business environment and it is also particularly sensitive to the industrial, food and beverage, retail and air travel sectors, which generate a significant portion of the demand for such vehicles. Sales of electric industrial vehicles have historically been cyclical, with demand affected by such economic factors as industrial production, construction levels, demand for consumer and durable goods, interest rates and fuel costs. A significant decline in demand for electric industrial vehicles could adversely affect our revenue and prospects, which would harm our business, financial condition and operating results.

Our success in the emerging market for passenger and fleet electric and hybrid electric vehicle charging systems will depend on numerous factors which are out of our control.

The passenger and fleet electric and hybrid electric vehicle charging systems market is expected to grow rapidly, along with innovations in fast charging technologies. As a result, we expect to face increasing competition from various charging system suppliers and large industrial electrical device suppliers such as Eaton Corporation, General Electric Company, Leviton Manufacturing Co., Inc., Schneider Electric SA, The ABB Group and Siemens AG. While we believe that we currently have superior charging technology and service infrastructure, we cannot assure you that competitors will not develop and bring to market substantially equivalent or superior technology. In addition, because the passenger electric and fleet charging systems market is relatively new, there is no guarantee that there will be strong consumer demand for charging systems. Demand for such systems could also be directly impacted by fuel costs; if fuel costs were to significantly decrease, the demand for electric vehicles and

Table of Contents

charging systems could decline. If there is little consumer demand for our passenger electric and fleet charging systems, our revenue and prospects could be adversely affected, which would harm our business, financial and operating results.

Our industrial electric vehicle charging systems business is dependent upon our relationships with third parties with whom we do not have exclusive arrangements.

To remain competitive in the market for industrial electric vehicle charging systems, we must maintain our access to potential customers and ensure that the service needs of our customers are met adequately. In many cases, we rely on battery and industrial vehicle dealers for access to potential industrial electric vehicle charging system customers. Currently, several of our industrial electric vehicle charging system competitors are working with battery manufacturers to sell fast charging systems and batteries together. Cooperative agreements between our competitors and battery manufacturers could restrict our access to battery dealers and potential industrial electric vehicle charging systems customers, adversely affecting our revenue and prospects. Additionally, we rely on outside service providers to perform post-sale services for our PosiCharge industrial electric vehicle charging system customers. If these service providers fail to perform these services as required or discontinue their business with us, then we could lose customers to competitors, which would harm our business, financial condition and operating results.

Our electric and hybrid electric vehicle charging system business is dependent upon our development of relationships with automakers, auto dealers, utilities and other participants in the electric and hybrid electric vehicle and electricity delivery markets.

We have been selected by several major automakers to support the rollout of new model electric vehicles across the U.S. with our home charging system. Accordingly, we depend upon those relationships and the success of the home charging rollout to those new model electric vehicle owners to expand our charging system footprint in the United States and worldwide. If one or more of our partnerships with those major automakers terminates prematurely, and we cannot establish similar relationships with other entities with direct access to electric vehicle owners and drivers, we may not be able to develop a sustainable market for our home charging system, which may delay the commercialization of our charging systems or jeopardize the long-term success of this product line. We believe that the success and growth of our passenger and fleet electric vehicle charging system business for the foreseeable future will also depend on our ability to develop similar working relationships with other automakers, as well as auto dealers, utilities, and other participants in the electric and hybrid electric vehicle and electricity delivery markets in the U.S. and internationally. While we have been working with other automakers and utilities to explore business models and to promote our solutions, there is no guarantee that we will be successful in doing so.

Our work for the U.S. government and international governments may expose us to security risks.

As a U.S. government contractor, we face various security threats, including cyber security attacks to our information technology infrastructure, attempts to gain access to our proprietary or classified information as well as threats to the physical security of our facilities and employees. Although we utilize various procedures and controls to monitor and mitigate these threats, there can be no assurance that these procedures and controls will be sufficient to prevent disruptions, the unauthorized release of confidential information or corruption of data. Accordingly, any significant operational delays, or any destruction, manipulation or improper use of our data, information systems or networks could adversely affect our financial results and damage the reputation for our products and services. If we or our partners are subject to data security breaches, we may have a loss in sales or increased costs arising from the restoration or implementation of additional security measures, either of which could materially and adversely affect our business and financial results.

Table of Contents

In addition, we work in international locations where there are high security risks, which could result in harm to our employees and contractors or substantial costs. Some of our services are performed in or adjacent to high-risk locations, such as Iraq and Afghanistan, where the country or location is suffering from political, social or economic issues, or war or civil unrest. In those locations where we have employees or operations, we may incur substantial costs to maintain the safety of our personnel. Despite these precautions, the safety of our personnel in these locations may continue to be at risk, and we may in the future suffer the loss of employees and contractors, which could harm our business and operating results.

We may not be able to obtain capital when desired on favorable terms, if at all, or without dilution to our stockholders.

We operate in emerging and rapidly evolving markets, which makes our prospects difficult to evaluate. It is possible that we may not generate sufficient cash flow from operations or otherwise have the capital resources to meet our future capital needs. If this occurs, then we may need additional financing to pursue our business strategies, including to:

- hire additional engineers and other personnel;
- develop new or enhance existing products;
- enhance our operating infrastructure;
- fund working capital requirements;
- acquire complementary businesses or technologies; or
- otherwise respond to competitive pressures.

If we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our stockholders could be significantly diluted, and these newly-issued securities may have rights, preferences or privileges senior to those of existing stockholders. We cannot assure you that additional financing will be available on terms favorable to us, or at all. Our former line of credit contained, and future debt financing may contain, covenants or other provisions that limit our operational or financial flexibility. In addition, certain of our customers require that we obtain letters of credit to support our obligations under some of our contracts.

Our investment portfolio includes investments in auction rate securities. Failures in the auctions for these securities affect our liquidity, while deterioration in credit ratings of issuers of such securities and/or third parties insuring such investments may require us to adjust the carrying value of our investment through an impairment of earnings.

As of April 30, 2012, our \$6.2 million of long-term investments, recorded at fair value, consisted entirely of auction rate municipal bonds with maturities that range from approximately 7 to 22 years. These investments have characteristics similar to short-term investments, because at pre-determined intervals, generally ranging from 30 to 35 days, there is a new auction process at which the interest rates for these securities are reset to current interest rates. At the end of such period, we choose to roll-over our holdings or redeem the investments for cash. A market maker facilitates the redemption of the securities and the underlying issuers are not required to redeem the investment within 365 days.

In 2010, 2011 and 2012, we experienced failed auctions of our auction rate securities and there is no assurance that auctions on the remaining auction rate securities in our investment portfolio will succeed in the future. As a result, our ability to liquidate our investments in the near term may be limited, and our ability to recover the carrying value of our investments may be limited. An auction failure means that the parties wishing to sell securities were not able to do so. As of June 15, 2012, including the securities involved in failed auctions, we held approximately \$7.3 million of these auction

Table of Contents

rate securities, all of which carry investment grade ratings. These investments are subject to general credit, liquidity, market and interest rate risks, which may be exacerbated by continued problems in the global credit markets, including but not limited to, U.S. subprime mortgage defaults, writedowns by major financial institutions due to deteriorating values of their assets portfolios, including leveraged loans, collateralized debt obligations, credit default swaps, and other credit-linked products. These and other related factors have affected various sectors of the financial markets and caused credit and liquidity issues. If the issuers of these securities are unable to successfully close future auctions or their credit ratings deteriorate, we may in the future be required to record an impairment charge on these investments. We currently believe these securities are not permanently impaired, primarily due to the government backing of the underlying securities. However, it could take until the final maturity of the underlying notes (up to 22 years) to realize our investments' purchase price of \$7.3 million. Based on our ability to access our cash and cash equivalents, expected operating cash flows, and our other sources of cash, we do not anticipate that the current lack of liquidity on these investments will affect our ability to continue to operate our business in the ordinary course, however we can provide no assurance as to when these investments will again become liquid or as to whether we may ultimately have to recognize an impairment charge with respect to these investments.

We face risks related to the current challenging economic environment.

Our business, financial condition and results of operation could be negatively affected by economic conditions generally, both in the United States and elsewhere around the world. Continuing concerns over inflation, energy costs, geopolitical issues, the availability and cost of credit, the U.S. mortgage market and a difficult residential real estate market in the United States have contributed to increased volatility and diminished expectations for the economy and the markets going forward. These factors, combined with volatile oil prices, declining business and consumer confidence and continued unemployment concerns, have resulted in heightened volatility and turmoil in domestic and international equity markets. These events and the continuing market upheavals could adversely affect our business in a number of ways, including:

Potential Deferment of Purchases and Orders by Customers: Uncertainty about current and future global economic conditions may cause governments, including the U.S. government, which is our largest customer, consumers and businesses to modify, defer or cancel purchases in response to tighter credit, decreased cash availability and declining consumer confidence. Accordingly, future demand for our products could differ materially from our current expectations. Additionally, if customers are not successful in generating sufficient revenue or are precluded from securing financing, they may not be able to pay, or may delay payment of, accounts receivable that are owed to us. Any inability of current and/or potential customers to pay us for our products may adversely affect our earnings and cash flow.

Negative Impact from Increased Financial Pressures on Key Suppliers: Our ability to meet customers' demands depends, in part, on our ability to obtain timely and adequate delivery of quality materials, parts and components from our suppliers. Certain of our hardware components and various subsystems are available only from a limited group of suppliers. If certain key suppliers were to become capacity constrained or insolvent as a result of a continuing market downturn, then we may have to find new suppliers. We may experience significant delays in manufacturing and shipping our products to customers and incur additional development, manufacturing and other costs to establish alternative sources of supply if we lose any of these sources or are required to redesign our products. We cannot predict if we will be able to obtain replacement components within the time frames that we require at an affordable cost, if at all. In addition, credit constraints of key suppliers could result in accelerated payment of accounts payable by us, impacting our cash flow.

Customers' Inability to Obtain Financing to Make Purchases from Us and/or Maintain Their Business: Some of our customers may require substantial financing in order to fund their operations and make

Edgar Filing: AeroVironment Inc - Form 10-K

Table of Contents

purchases from us. The inability of these customers to obtain sufficient credit to finance purchases of our products, or otherwise meet their payment obligations to us could adversely impact our financial condition and results of operations. In addition, if a continuing market downturn results in insolvencies for our customers, it could adversely impact our financial condition and results of operations.

Our international business poses potentially greater risks than our domestic business.

We derived approximately 5% of our revenue from international sales during the fiscal year ended April 30, 2012. We expect to derive an increasing portion of our revenue from international sales. Our international revenue and operations are subject to a number of material risks, including the following:

the unavailability of, or difficulties in obtaining any, necessary governmental authorizations for the export of our UAS products to certain foreign jurisdictions;

regulatory requirements that may adversely affect our ability to sell certain products or repatriate profits to the U.S.;

the complexity and necessity of using foreign representatives and consultants;

difficulties in enforcing agreements and collecting receivables through foreign legal systems and other relevant legal issues, including fewer legal protections for intellectual property;

potential fluctuations in foreign economies and in the value of foreign currencies and interest rates;

potential preferences by prospective customers to purchase from local (non-U.S.) sources;

general economic and political conditions in the markets in which we operate;

laws or regulations relating to non-U.S. military contracts that favor purchases from non-U.S. manufacturers over U.S. manufacturers;

the imposition of tariffs, embargoes, export controls and other trade restrictions; and

different and changing legal and regulatory requirements, including those pertaining to data protection and privacy, in the jurisdictions in which we currently operate or may operate in the future.

Negative developments in any of these areas in one or more countries could result in a reduction in demand for our products, the cancellation or delay of orders already placed, threats to our intellectual property, difficulty in collecting receivables and a higher cost of doing business, any of which could negatively impact our business, financial condition or results of operations. Moreover, our sales, including sales to customers outside the United States, are denominated in dollars, and downward fluctuations in the value of foreign currencies relative to the U.S. dollar may make our products more expensive than other products, which could harm our business.

Potential future acquisitions could be difficult to integrate, divert the attention of key personnel, disrupt our business, dilute stockholder value and impair our financial results.

We intend to consider strategic acquisitions that would add to our customer base, technological capabilities or system offerings. Acquisitions involve numerous risks, any of which could harm our business, including the following:

Edgar Filing: AeroVironment Inc - Form 10-K

difficulties in integrating the operations, technologies, products, existing contracts, accounting and personnel of the target company and realizing the anticipated synergies of the combined businesses;

difficulties in supporting and transitioning customers, if any, of the target company;

Table of Contents

diversion of financial and management resources from existing operations;

the price we pay or other resources that we devote may exceed the value we realize, or the value we could have realized if we had allocated the purchase price or other resources to another opportunity;

risks of entering new markets in which we have limited or no experience;

potential loss of key employees, customers and strategic alliances from either our current business or the target company's business;

assumption of unanticipated problems or latent liabilities, such as problems with the quality of the target company's products; and

inability to generate sufficient revenue to offset acquisition costs.

Acquisitions also frequently result in the recording of goodwill and other intangible assets which are subject to potential impairments in the future that could harm our financial results. In addition, if we finance acquisitions by issuing equity, or securities convertible into equity, then our existing stockholders may be diluted, which could lower the market price of our common stock. If we finance acquisitions through debt, then such future debt financing may contain covenants or other provisions that limit our operational or financial flexibility. As a result, if we fail to properly evaluate acquisitions or investments, then we may not achieve the anticipated benefits of any such acquisitions, and we may incur costs in excess of what we anticipate. The failure to successfully evaluate and execute acquisitions or investments or otherwise adequately address these risks could materially harm our business and financial results.

Environmental laws and regulations and unforeseen costs could impact our future earnings.

The manufacture and sale of our products in certain states and countries may subject us to environmental and other regulations. For example, we obtain a significant number of our electronics components from companies located in East Asia, where environmental rules may be less stringent than in the United States. Over time, the countries where these companies are located may adopt more stringent environmental regulations, resulting in an increase in our manufacturing costs. Furthermore, certain environmental laws, including the U.S. Comprehensive, Environmental Response, Compensation and Liability Act of 1980, impose strict, joint and several liability on current and previous owners or operators of real property for the cost of removal or remediation of hazardous substances and impose liability for damages to natural resources. These laws often impose liability even if the owner or operator did not know of, or was not responsible for, the release of such hazardous substances. These environmental laws also assess liability on persons who arrange for hazardous substances to be sent to disposal or treatment facilities when such facilities are found to be contaminated. Such persons can be responsible for cleanup costs even if they never owned or operated the contaminated facility. Although we have not yet been named a responsible party at a contaminated site, we could be named a potentially responsible party in the future. We cannot assure you that such existing laws or future laws will not have a material adverse effect on our future earnings or results of operations.

Our passenger and fleet electric vehicle charging system business is subject to federal, state and international laws regarding data protection and privacy, and a privacy breach could damage our reputation, expose us to litigation risk and adversely affect our business.

In connection with our emerging passenger and fleet electric vehicle charging system business, we collect, process and retain certain sensitive and confidential customer information. As a result, we are subject to increasingly rigorous federal, state and international laws regarding privacy and data protection. Compliance with these constantly evolving laws may cause us to incur significant costs or require changes to our business practices, which could reduce our revenue. If we fail to comply with

Table of Contents

these laws, proceedings may be brought against us by governmental entities or others or penalties may be imposed on us, either of which could have a material adverse effect on our business, results of operations and financial condition. While we rely, in part, on security services and software provided by outside vendors to protect sensitive and confidential customer information, there is no guarantee that the protections that we or our outside vendors have implemented will prevent security breaches. Any actual, threatened or perceived security breach that could result in misappropriation, loss or other unauthorized disclosure of sensitive or confidential customer information could harm our reputation and relationship with customers, expose us to litigation risk and liability and adversely affect our business.

Our business and operations are subject to the risks of earthquakes and other natural catastrophic events.

Our corporate headquarters, research and development and manufacturing operations are located in Southern California, a region known for seismic activity and wild fires. A significant natural disaster, such as an earthquake, fire or other catastrophic event, could severely affect our ability to conduct normal business operations, and as a result, our future operating results could be materially and adversely affected.

Risks Related to Our U.S. Government Contracts

We are subject to extensive government regulation, and our failure to comply with applicable regulations could subject us to penalties that may restrict our ability to conduct our business.

As a contractor to the U.S. government, we are subject to and must comply with various government regulations that impact our revenue, operating costs, profit margins and the internal organization and operation of our business. The most significant regulations and regulatory authorities affecting our business include the following:

the Federal Acquisition Regulations and supplemental agency regulations, which comprehensively regulate the formation and administration of, and performance under, U.S. government contracts;

the Truth in Negotiations Act, which requires certification and disclosure of all factual cost and pricing data in connection with contract negotiations;

the False Claims Act and the False Statements Act, which impose penalties for payments made on the basis of false facts provided to the government and on the basis of false statements made to the government, respectively;

the Foreign Corrupt Practices Act, which prohibits U.S. companies from providing anything of value to a foreign official to help obtain, retain or direct business, or obtain any unfair advantage;

the National Telecommunications and Information Administration and the Federal Communications Commission, which regulate the wireless spectrum allocations upon which UAS depend for operation and data transmission in the U.S.;

the Federal Aviation Administration, which is in the process of drafting regulations specifically for small UAS operation in the U.S.;

the International Traffic in Arms Regulations, which regulate the export of controlled technical data, defense articles and defense services and restrict from which countries we may purchase materials and services used in the production of certain of our products; and

Table of Contents

laws, regulations and executive orders restricting the use and dissemination of information classified for national security purposes and the exportation of certain products and technical data.

Also, we need special security clearances and regulatory approvals to continue working on certain of our projects with the U.S. government. Classified programs generally will require that we comply with various executive orders, federal laws and regulations and customer security requirements that may include restrictions on how we develop, store, protect and share information, and may require our employees and facilities to obtain government security clearances. Our failure to comply with applicable regulations, rules and approvals or misconduct by any of our employees could result in the imposition of fines and penalties, the loss of security clearances, the loss of our government contracts or our suspension or debarment from contracting with the U.S. government generally, any of which would harm our business, financial condition and results of operations. We are also subject to certain regulations of comparable government agencies in other countries, and our failure to comply with these non-U.S. regulations could also harm our business, financial condition or results of operations.

Our business could be adversely affected by a negative audit or investigation by the U.S. government.

U.S. government agencies, primarily the DCAA and the DCMA, routinely audit and investigate government contractors. These agencies review a contractor's performance under its contracts, cost structure and compliance with applicable laws, regulations and standards. These agencies also may review the adequacy of, and a contractor's compliance with, its internal control systems and policies, including the contractor's purchasing, property, estimating, compensation and management information systems.

Like most government contractors, our contracts are audited and reviewed on a continual basis by the DCMA and the DCAA. Audits for costs incurred on work performed after fiscal year 2005 have not yet been completed. In addition, non-audit reviews or investigations by the government may still be conducted on all of our government contracts. Any costs found to be improperly allocated to a specific contract will not be reimbursed, while such costs already reimbursed must be refunded. If an audit or investigation of our business were to uncover improper or illegal activities, then we could be subject to civil and criminal penalties and administrative sanctions, including termination of contracts, forfeiture of profits, suspension of payments, fines and suspension or prohibition from doing business with the U.S. government. We could suffer serious harm to our reputation if allegations of impropriety or illegal acts were made against us, even if the allegations were inaccurate. In addition, responding to governmental audits or investigations may involve significant expense and divert management attention. If any of the foregoing were to occur, our financial condition and operating results could be materially adversely affected.

Moreover, if any of our administrative processes and systems are found not to comply with the applicable requirements, we may be subjected to increased government scrutiny or required to obtain additional governmental approvals that could delay or otherwise adversely affect our ability to compete for or perform contracts. An unfavorable outcome to such an audit or investigation by the DCAA, U.S. Department of Justice, or DOJ or other government agency, could materially adversely affect our competitive position, affect our ability to obtain the maximum price for our products and services, and result in a substantial reduction of our revenues.

If we were suspended or debarred from contracting with the federal government generally, or any specific agency, if our reputation or relationship with government agencies were impaired, or if the government otherwise ceased doing business with us or significantly decreased the amount of business it does with us, our revenue and operating results would be materially harmed.

Table of Contents

In February 2010, we were notified by the DOJ that it had initiated a civil investigation into our billing practices with respect to our government contracts. The investigation is focused on three matters:

the appropriateness of certain expenses included in our fiscal year 2006 Incurred Indirect Cost Claim (reconciliation of projected rates to actual rates);

billing labor rates associated with time and materials government contracts; and

billing rates for small UAS maintenance and repair contracts.

We are currently cooperating with this investigation, which we believe may be the result of prior DCAA audit activity. Based on our current understanding of the matters identified, we believe that the outcome of the investigation will not have a material impact on our business. We have voluntarily cooperated with a request for information received in connection with this investigation. No claim has been filed against us to date.

Some of our contracts with the U.S. government allow it to use inventions developed under the contracts and to disclose technical data to third parties, which could harm our ability to compete.

Some of our contracts allow the U.S. government to use, royalty-free, or have others use, inventions developed under those contracts on behalf of the government. Some of the contracts allow the federal government to disclose technical data without constraining the recipient on how those data are used. The ability of third parties to use patents and technical data for government purposes creates the possibility that the government could attempt to establish alternative suppliers or to negotiate with us to reduce our prices. The potential that the government may release some of the technical data without constraint creates the possibility that third parties may be able to use this data to compete with us, which could have a material adverse effect on our business, results of operations or financial condition.

U.S. government contracts are generally not fully funded at inception and contain certain provisions that may be unfavorable to us, which could prevent us from realizing our contract backlog and materially harm our business and results of operations.

U.S. Government contracts typically involve long lead times for design and development, and are subject to significant changes in contract scheduling. Congress generally appropriates funds on a fiscal year basis even though a program may continue for several years. Consequently, programs are often only partially funded initially, and additional funds are committed only as Congress makes further appropriations. The termination or reduction of funding for a government program would result in a loss of anticipated future revenue attributable to that program.

The actual receipt of revenue on awards included in backlog may never occur or may change because a program schedule could change or the program could be canceled, or a contract could be reduced, modified or terminated early.

In addition, U.S. government contracts generally contain provisions permitting termination, in whole or in part, at the government's convenience or for contractor default. Since a substantial majority of our revenue is dependent on the procurement, performance and payment under our U.S. government contracts, the termination of one or more critical government contracts could have a negative impact on our results of operations and financial condition. Termination arising out of our default could expose us to liability and have a material adverse effect on our ability to re-compete for future contracts and orders. Moreover, several of our contracts with the U.S. government do not contain a limitation of liability provision, creating a risk of responsibility for indirect, incidental damages and consequential damages. These provisions could cause substantial liability for us, especially given the use to which our products may be put.

Table of Contents

U.S. government contracts are subject to a competitive bidding process that can consume significant resources without generating any revenue.

U.S. government contracts are frequently awarded only after formal, protracted competitive bidding processes and, in many cases, unsuccessful bidders for U.S. government contracts are provided the opportunity to protest contract awards through various agency, administrative and judicial channels. We derive significant revenue from U.S. government contracts that were awarded through a competitive bidding process. Much of the UAS business that we expect to seek in the foreseeable future likely will be awarded through competitive bidding. Competitive bidding presents a number of risks, including the following:

the need to bid on programs in advance of the completion of their design, which may result in unforeseen technological difficulties and cost overruns;

the substantial cost and managerial time and effort that must be spent to prepare bids and proposals for contracts that may not be awarded to us;

the need to estimate accurately the resources and cost structure that will be required to service any contract we are awarded; and

the expense and delay that may arise if our competitors protest or challenge contract awards made to us pursuant to competitive bidding, and the risk that any such protest or challenge could result in the delay of our contract performance, the distraction of management, the resubmission of bids on modified specifications, or in termination, reduction or modification of the awarded contract.

We may not be provided the opportunity to bid on contracts that are held by other companies and are scheduled to expire if the government extends the existing contract. If we are unable to win particular contracts that are awarded through a competitive bidding process, then we may not be able to operate in the market for goods and services that are provided under those contracts for a number of years. If we are unable to win new contract awards over any extended period consistently, then our business and prospects will be adversely affected.

Risks Related to Our Intellectual Property

If we fail to protect, or incur significant costs in defending, our intellectual property and other proprietary rights, our business, financial condition, and results of operations could be materially harmed.

Our success depends, in large part, on our ability to protect our intellectual property and other proprietary rights. We rely primarily on patents, trademarks, copyrights, trade secrets and unfair competition laws, as well as license agreements and other contractual provisions, to protect our intellectual property and other proprietary rights. However, a significant portion of our technology is not patented, and we may be unable or may not seek to obtain patent protection for this technology. Moreover, existing U.S. legal standards relating to the validity, enforceability and scope of protection of intellectual property rights offer only limited protection, may not provide us with any competitive advantages, and may be challenged by third parties. The laws of countries other than the United States may be even less protective of intellectual property rights. Accordingly, despite our efforts, we may be unable to prevent third parties from infringing upon or misappropriating our intellectual property or otherwise gaining access to our technology. Unauthorized third parties may try to copy or reverse engineer our products or portions of our products or otherwise obtain and use our intellectual property. Moreover, many of our employees have access to our trade secrets and other intellectual property. If one or more of these employees leave us to work for one of our competitors, then they may disseminate this proprietary information, which may as a result damage our competitive position. If we fail to protect our intellectual property and other proprietary rights, then our business, results of operations or financial condition could be materially harmed.

Table of Contents

In addition, affirmatively defending our intellectual property rights and investigating whether we are pursuing a product or service development that may violate the rights of others may entail significant expense. Any of our intellectual property rights may be challenged by others or invalidated through administrative processes or litigation. If we resort to legal proceedings to enforce our intellectual property rights or to determine the validity and scope of the intellectual property or other proprietary rights of others, then the proceedings could result in significant expense to us and divert the attention and efforts of our management and technical employees, even if we prevail.

We may be sued by third parties for alleged infringement of their proprietary rights, which could be costly, time-consuming and limit our ability to use certain technologies in the future.

We may become subject to claims that our technologies infringe upon the intellectual property or other proprietary rights of third parties. Any claims, with or without merit, could be time-consuming and expensive, and could divert our management's attention away from the execution of our business plan. Moreover, any settlement or adverse judgment resulting from these claims could require us to pay substantial amounts or obtain a license to continue to use the disputed technology, or otherwise restrict or prohibit our use of the technology. We cannot assure you that we would be able to obtain a license from the third party asserting the claim on commercially reasonable terms, if at all, that we would be able to develop alternative technology on a timely basis, if at all, or that we would be able to obtain a license to use a suitable alternative technology to permit us to continue offering, and our customers to continue using, our affected product. An adverse determination also could prevent us from offering our products to others. Infringement claims asserted against us may have a material adverse effect on our business, results of operations or financial condition.

Risks Relating to Securities Markets and Investment in Our Stock

The price of our common stock may fluctuate significantly.

The market prices for securities of emerging technology companies have historically been highly volatile, and the market has from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies. The market price of our common stock may fluctuate significantly in response to a number of factors, most of which we cannot control, including the following:

U.S. government spending levels, both generally and by our particular customers;

the volume of operational activity by the U.S. military;

delays in the payment of our invoices by government payment offices, resulting in potentially reduced earnings during a particular fiscal quarter;

announcements of new products or technologies, commercial relationships or other events relating to us or our industry or our competitors;

failure of any of our key products to gain market acceptance;

variations in our quarterly operating results;

perceptions of the prospects for the markets in which we compete;

changes in general economic conditions;

changes in securities analysts' estimates of our financial performance;

Edgar Filing: AeroVironment Inc - Form 10-K

regulatory developments in the U.S. and foreign countries;

fluctuations in stock market prices and trading volumes of similar companies;

Table of Contents

news about the markets in which we compete or regarding our competitors;

terrorist acts or military action related to international conflicts, wars or otherwise;

sales of large blocks of our common stock, including sales by our executive officers, directors and significant stockholders;
and

additions or departures of key personnel.

In addition, the equity markets in general, and NASDAQ in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. Further, the market prices of securities of emerging technology companies have been particularly volatile. These broad market and industry factors may affect the market price of our common stock adversely, regardless of our operating performance. In the past, following periods of volatility in the market price of a company's securities, securities class action litigation often has been instituted against that company. This type of litigation, if instituted against us, could result in substantial costs and a diversion of management's attention and resources.

Our management, whose interests may not be aligned with yours, is able to exert significant influence over all matters requiring stockholder approval.

As of June 15, 2012, our directors, executive officers and their affiliates collectively beneficially owned 3,900,940 shares, or approximately 17%, of our total outstanding shares of common stock. Accordingly, our directors and executive officers as a group may be able to exert significant influence over matters requiring stockholder approval, including the election of directors. The interests of our directors and executive officers may not be fully aligned with yours. Although there is no agreement among our directors and executive officers with respect to the voting of their shares, this concentration of ownership may delay, defer or even prevent a change in control of our company, and make transactions more difficult or impossible without the support of all or some of our directors and executive officers. These transactions might include proxy contests, tender offers, mergers or other purchases of common stock that could give you the opportunity to realize a premium over the then-prevailing market price for shares of our common stock.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

All of our facilities are leased. Our corporate headquarters are located in Monrovia, California where we lease approximately 13,000 square feet under an agreement expiring in September 2015. We have several other leased facilities in California, Alabama and Virginia that are used for administration, research and development, logistics and manufacturing and have a total of approximately 432,000 square feet. Such leases expire between the end of 2013 and 2017.

Item 3. Legal Proceedings.

We are not currently a party to any material legal proceedings. We are, however, subject to lawsuits from time to time in the ordinary course of business.

Item 4. Mine Safety Disclosure.

Not applicable.

Table of Contents**PART II****Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.****Common Stock**

The following table sets forth, for the periods indicated, the high and low sales prices for our common stock from May 1, 2010 through April 30, 2012. The following quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission, and may not represent actual transactions.

	Fiscal Year Ended April 30,			
	2012		2011	
	High	Low	High	Low
First Quarter	\$ 36.49	\$ 26.81	\$ 28.17	\$ 20.70
Second Quarter	\$ 34.28	\$ 24.01	\$ 24.47	\$ 21.25
Third Quarter	\$ 33.87	\$ 28.33	\$ 29.91	\$ 22.25
Fourth Quarter	\$ 31.87	\$ 23.70	\$ 35.96	\$ 27.20

On June 15, 2012, the closing sales price of our common stock as reported on the NASDAQ Global Select Market was \$23.54 per share. As of June 15, 2012, there were 73 holders of record of our common stock.

Dividends

We currently intend to retain all future earnings, if any, for use in the operation and expansion of our business and do not anticipate paying any cash dividends in the foreseeable future. Any future determination related to dividend policy will be made at the discretion of our board of directors and will depend upon, among other factors, our results of operations, financial condition, capital requirements, contractual restrictions and such other factors as our board of directors deems relevant.

Table of Contents

Stock Price Performance Graph

The following graph shows a comparison of cumulative returns on our common stock, based on the market price of the common stock, with the cumulative total returns of companies in the Russell 2000 Index and the SPADES Index.

Cumulative Total Return

The following table shows the value of \$100 invested on April 30, 2007 in AeroVironment, Inc., the Russell 2000 Index and the SPADES Index.

	Performance Graph Table (\$)					
	April 30, 2007	April 30, 2008	April 30, 2009	April 30, 2010	April 30, 2011	April 30, 2012
AeroVironment Stock	100	112	111	122	134	114
Russell 2000 Index	100	88	60	88	106	100
SPADES Index	100	104	66	94	102	99

The stock price performance shown on the graph above is not necessarily indicative of future price performance. Factual material was obtained from sources believed to be reliable, but we are not responsible for any errors or omissions contained therein. No portions of this graph shall be deemed incorporated by reference into any filing under the Securities Act, or the Exchange Act through any general statement incorporating by reference in its entirety the report in which this graph appears, except to the extent that we specifically incorporate this graph or a portion of it by reference. In addition, this graph shall not be deemed filed under either the Securities Act or the Exchange Act.

Table of Contents**Item 6. Selected Consolidated Financial Data.**

The following selected financial data should be read in conjunction with our consolidated financial statements. The information set forth below is not necessarily indicative of results of future operations, and should be read in conjunction with Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and notes thereto included in Item 8, "Financial Statements and Supplementary Data" of this Annual Report in order to understand fully factors that may affect the comparability of the financial data presented below.

	Year Ended April 30,				
	2012	2011	2010	2009	2008
(In thousands, except per share data)					
Consolidated Income Statement Data:					
Revenue	\$ 325,008	\$ 292,503	\$ 249,518	\$ 247,662	\$ 215,746
Net income	\$ 30,451	\$ 25,909	\$ 20,716	\$ 24,245	\$ 21,386
Earnings per common share:					
Basic	\$ 1.40	\$ 1.20	\$ 0.97	\$ 1.15	\$ 1.08
Diluted	\$ 1.36	\$ 1.17	\$ 0.94	\$ 1.11	\$ 1.00
Weighted average common shares outstanding (basic):	21,783	21,591	21,392	21,024	19,767
Weighted average common shares outstanding (diluted):	22,315	22,081	21,977	21,776	21,372
Balance Sheet Data					
Total assets	\$ 369,151	\$ 331,747	\$ 281,971	\$ 253,181	\$ 205,211
Long-term obligations	\$ 6,248	\$ 6,175	\$ 4,438	\$ 7,117	\$ 5,460

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.**Introduction**

The following discussion of our financial condition and results of operations should be read in conjunction with our "Selected Consolidated Financial Data" and our consolidated financial statements and notes thereto included herein as Item 8. This discussion contains forward-looking statements. Refer to "Forward-Looking Statements" on page 2 and "Risk Factors" beginning on page 25, for a discussion of the uncertainties, risks and assumptions associated with these statements.

Overview

We design, develop, produce, support and operate a technologically-advanced portfolio of products. We supply unmanned aircraft systems, or UAS, and services primarily to organizations within the U.S. Department of Defense, or DoD. We also supply charging systems and services for electric vehicles and power cycling and test systems to commercial, consumer and government customers. We derive the majority of our revenue from these business areas and we believe that the markets for these solutions have significant growth potential. Additionally, we believe that some of the innovative potential products in our research and development pipeline will emerge as new growth platforms in the future, creating additional market opportunities.

The success we have achieved with our current products stems from our investment in research and development and our ability to invent and deliver advanced solutions, utilizing our proprietary technologies, to help our government, commercial and consumer customers operate more effectively and efficiently. Our core technological capabilities, developed through 40 years of innovation, include lightweight aerostructures, power electronics, electric propulsion systems, efficient electric energy generation and storage systems, high-density energy packaging, miniaturization, controls integration and systems engineering optimization.

Table of Contents

Our UAS business segment focuses primarily on the design, development, production, support and operation of innovative UAS that provide situational awareness and other mission effects to increase the security and effectiveness of our customers' operations. Our Efficient Energy Systems, or EES, business segment focuses primarily on the design, development, production, support and operation of innovative efficient electric energy systems that address the growing demand for electric transportation solutions.

Revenue

We generate our revenue primarily from the sale, support and operation of our small UAS, electric vehicle charging systems and power cycling and test systems solutions. Support for our small UAS customers includes training, spare parts, product repair, product replacement, and the customer-contracted operation of our small UAS by our personnel. We refer to these support activities collectively as our services operation. We derive most of our small UAS revenue from fixed-price and cost-plus-fee contracts with the U.S. government, and most of our electric vehicle charging systems and power cycling and test systems revenue from sales and service to commercial customers.

Cost of Sales

Cost of sales consists of direct costs and allocated indirect costs. Direct costs include labor, materials, travel, subcontracts and other costs directly related to the execution of a specific contract. Indirect costs include overhead expenses, fringe benefits and other costs that are not directly charged to a specific contract.

Gross Margin

Gross margin is equal to revenue minus cost of sales. We use gross margin as a financial metric to help us understand trends in our direct costs and allocated indirect costs when compared to the revenue we generate.

Research and Development Expense

Research and development, or R&D, is an integral part of our business model. We conduct significant internally funded research and development and anticipate that research and development expense will continue to increase in absolute dollars for the foreseeable future. Our research and development activities focus specifically on creating capabilities that support our existing product portfolio as well as new solutions. These activities are funded both externally by customers and internally.

Selling, General and Administrative

Our selling, general and administrative expenses, or SG&A, include salaries and other expenses related to selling, marketing and proposal activities, and other administrative costs. SG&A is an important financial metric that we analyze to help us evaluate the contribution of our selling, marketing and proposal activities to revenue generation.

Other Income and Expenses

Other income and expenses includes interest income and interest expense.

Income Tax Expense

Our effective tax rates are substantially lower than the statutory rates primarily due to research and development tax credits.

Table of Contents

Critical Accounting Policies and Estimates

Management's Discussion and Analysis of Financial Condition and Results of Operations discusses our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. When we prepare these consolidated financial statements, we are required to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Some of our accounting policies require that we make subjective judgments, including estimates that involve matters that are inherently uncertain. Our most critical estimates include those related to revenue recognition, inventories and reserves for excess and obsolescence, self-insured liabilities, accounting for stock-based awards, and income taxes. We base our estimates and judgments on historical experience and on various other factors that we believe to be reasonable under the circumstances, the results of which form the basis for our judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Our actual results may differ from these estimates under different assumptions or conditions.

We believe the following critical accounting estimates affect our more significant judgments and estimates used in preparing our consolidated financial statements. See Note 1 of the Notes to Consolidated Financial Statements for our Organization and Significant Accounting Policies. There have been no material changes made to the critical accounting estimates during the periods presented in the consolidated financial statements.

Revenue Recognition

Significant management judgments and estimates must be made and used in connection with the recognition of revenue in any accounting period. Material differences in the amount of revenue in any given period may result if these judgments or estimates prove to be incorrect or if management's estimates change on the basis of development of the business or market conditions. Management judgments and estimates have been applied consistently and have been reliable historically. We believe that there are two key factors which impact the reliability of management's estimates. The first of those key factors is that the terms of our contracts are typically less than six months. The short-term nature of such contracts reduces the risk that material changes in accounting estimates will occur on the basis of market conditions or other factors. The second key factor is that we have hundreds of contracts in any given accounting period, which reduces the risk that any one change in an accounting estimate on one or several contracts would have a material impact on our consolidated financial statements or our two reporting segments' measures of profit.

The substantial majority of our revenue is generated pursuant to written contractual arrangements to design, develop, manufacture and/or modify complex products, and to provide related engineering, technical and other services according to customer specifications. These contracts may be fixed price or cost-reimbursable. We consider all contracts for treatment in accordance with authoritative guidance for contracts with multiple deliverables.

Revenue from product sales not under contractual arrangement is recognized at the time title and the risk and rewards of ownership pass, which typically occurs when the products are shipped and collection is reasonably assured.

Revenue and profits on fixed-price contracts are recognized using percentage-of-completion methods of accounting. Revenue and profits on fixed-price production contracts, whose units are produced and delivered in a continuous or sequential process, are recorded as units are delivered based on their selling prices, or the units-of-delivery method. Revenue and profits on other fixed-price contracts with significant engineering as well as production requirements are recorded based on the ratio of total actual incurred costs to date to the total estimated costs for each contract, or the

Table of Contents

cost-to-cost method. Under percentage-of-completion methods of accounting, a single estimated total profit margin is used to recognize profit for each contract over its entire period of performance, which can exceed one year. Accounting for revenue and profits on a fixed-price contract requires the preparation of estimates of (1) the total contract revenue, (2) the total costs at completion, which is equal to the sum of the actual incurred costs to date on the contract and the estimated costs to complete the contract's statement of work and (3) the measurement of progress towards completion. The estimated profit or loss at completion on a contract is equal to the difference between the total estimated contract revenue and the total estimated cost at completion. Under the units-of-delivery method, sales on a fixed-price type contract are recorded as the units are delivered during the period based on their contractual selling prices. Under the cost-to-cost method, sales on a fixed-price type contract are recorded at amounts equal to the ratio of actual cumulative costs incurred divided by total estimated costs at completion, multiplied by (A) the total estimated contract revenue, less (B) the cumulative sales recognized in prior periods. The profit recorded on a contract in any period using either the units-of-delivery method or cost-to-cost method is equal to (X) the current estimated total profit margin multiplied by the cumulative sales recognized, less (Y) the amount of cumulative profit previously recorded for the contract. In the case of a contract for which the total estimated costs exceed the total estimated revenue, a loss arises, and a provision for the entire loss is recorded in the period that it becomes evident. The unrecoverable costs on a loss contract that are expected to be incurred in future periods are recorded in the program cost.

Revenue and profits on cost-reimbursable type contracts are recognized as costs are incurred on the contract, at an amount equal to the costs plus the estimated profit on those costs. The estimated profit on a cost-reimbursable contract is generally fixed or variable based on the contractual fee arrangement.

We review cost performance and estimates to complete at least quarterly and in many cases more frequently. Adjustments to original estimates for a contract's revenue, estimated costs at completion and estimated profit or loss are often required as work progresses under a contract, as experience is gained and as more information is obtained, even though the scope of work required under the contract may not change, or if contract modifications occur. The impact of revisions in profit estimates for all types of contracts are recognized on a cumulative catch-up basis in the period in which the revisions are made. During the fiscal years ended April 30, 2012, 2011 and 2010, changes in accounting estimates on fixed-price contracts recognized using the percentage of completion method of accounting were not material to our consolidated financial statements or our two reporting segments' measure of profit. Amounts representing contract change orders or claims are included in revenue only when they can be reliably estimated and their realization is probable. Incentives or penalties and awards applicable to performance on contracts are considered in estimating revenue and profit rates, and are recorded when there is sufficient information to assess anticipated contract performance.

Inventories and Reserve for Excess and Obsolescence

Our policy for valuation of inventory, including the determination of obsolete or excess inventory, requires us to perform a detailed assessment of inventory at each balance sheet date, which includes a review of, among other factors, an estimate of future demand for products within specific time horizons, valuation of existing inventory, as well as product lifecycle and product development plans. Inventory reserves are also provided to cover risks arising from slow-moving items. We write down our inventory for estimated obsolescence or unmarketable inventory equal to the difference between the cost of inventory and the estimated market value based on assumptions about future demand and market conditions. We may be required to record additional inventory write-downs if actual market conditions are less favorable than those projected by our management.

Table of Contents

Self-Insured Liability

We are self-insured for employee medical claims, subject to individual and aggregate stop-loss policies. We estimate a liability for claims filed and incurred but not reported based upon recent claims experience and an analysis of the average period of time between the occurrence of a claim and the time it is reported to and paid by us. We perform an annual evaluation of this policy and have determined that for all prior years during which this policy has been in effect there have been cost advantages to this policy, as compared to obtaining commercially available employee medical insurance. However, actual results may differ materially from those estimated and could have a material impact on our consolidated financial statements.

Impairment of Long-Lived Assets

We review the recoverability of long-lived assets whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. The estimated future cash flows are based upon, among other things, assumptions about expected future operating performance, and may differ from actual cash flows. If the sum of the projected undiscounted cash flows (excluding interest) is less than the carrying value of the assets, the assets will be written down to the estimated fair value in the period in which the determination is made.

Long-Term Incentive Awards

We grant long-term incentive awards and we establish a target payout at the beginning of each performance period. The actual payout at the end of the performance period is calculated based upon our achievement of revenue and operating profit growth targets. Payouts are made in cash and restricted stock units. Upon vesting of the restricted stock units, we have the discretion to settle the restricted stock units in cash or stock.

The cash component of the award is accounted for as a liability. The equity component is accounted for as a stock-based liability as the restricted stock units may be settled in cash or stock. At each reporting period, we reassess the probability of achieving the performance targets. The estimation of whether the performance targets will be achieved requires judgment, and to the extent actual results or updated estimates differ from our current estimates, the cumulative effect on current and prior periods of those changes will be recorded in the period estimates are revised.

Income Taxes

We are required to estimate our income taxes, which includes estimating our current income taxes as well as measuring the temporary differences resulting from different treatment of items for tax and accounting purposes. We currently have significant deferred assets, which are subject to periodic recoverability assessments. Realizing our deferred tax assets principally depends on our achieving projected future taxable income. We may change our judgments regarding future profitability due to future market conditions and other factors, which may result in recording a valuation allowance against those deferred tax assets.

Fiscal Periods

Our fiscal year ends on April 30. Due to our fixed year end date of April 30, our first and fourth quarters each consist of approximately 13 weeks. The second and third quarters each consist of 13 weeks. Our first three quarters end on a Saturday.

Edgar Filing: AeroVironment Inc - Form 10-K

Table of Contents

Results of Operations

The following table sets forth certain historical consolidated income statement data expressed in dollars (in thousands) and as a percentage of revenue for the periods indicated. Certain amounts may not sum due to rounding.

	Fiscal Year Ended April 30,					
	2012		2011		2010	
Revenue	\$ 325,008	100%	\$ 292,503	100%	\$ 249,518	100%
Cost of sales	195,675	60%	175,352	60%	152,692	61%
Gross margin	129,333	40%	117,151	40%	96,826	39%
Selling, general and administrative	55,280	17%	47,431	16%	42,429	17%
Research and development	30,977	10%	35,769	12%	24,510	10%
Income from operations	43,076	13%	33,951	12%	29,887	12%
Interest income	462	0%	277	0%	195	0%
Income before income taxes	43,538	13%	34,228	12%	30,082	12%
Income tax expense	13,087	4%	8,319	3%	9,366	4%
Net income	\$ 30,451	9%	\$ 25,909	9%	\$ 20,716	8%

The following table sets forth our revenue and gross margin generated by each operating segment for the periods indicated:

	Fiscal Year Ended April 30,		
	2012	2011	2010
	(In thousands)		
Revenue:			