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AAI

Outlook

- Textron acquired AAI in late 2007 in a deal valued at \$1.1 billion
- AAI will now operate as a wholly owned subsidiary under Textron's Bell segment, with the majority of the business operating within Textron Systems Corporation
- This report will be archived in 2009, with AAI news then to be covered under Textron



Headquarters

AAI Corporation Inc 124 Industry Ln PO Box 126 Hunt Valley, MD 21030 Telephone: +1 (410) 666-1400 Fax: +1 (410) 628-3215 Web site: http://www.aaicorp.com

Textron acquired AAI Corporation in late 2007 in a deal valued at \$1.1 billion.

AAI now operates as an indirect wholly owned subsidiary of Textron Inc. AAI's products and services include unmanned aircraft systems, training and simulation systems, automated aerospace test and maintenance equipment, armament systems, aviation ground support equipment, logistical and engineering services, and maintenance, repair and overhaul activities.

AAI employs about 2,500 people.

Structure and Personnel

AAI Corporation

Ellen Lord Senior Vice President, General Manager Michael A. Boden Executive Vice President, Operations Edward E. Buffington Vice President, Test Systems Thomas R. Kubik Vice President, Strategy and Planning Paul Lavin President, AAI Services Corporation John F. Michitsch Executive Vice President Anna-Maria Gonzalez Palmer Vice President, Human Resources Robert J. Peters Vice President of Business Development and Training Systems David A. Phillips Vice President, Advanced Programs Steven E. Reid Vice President, Unmanned Aircraft Systems

Product Area

AAI produces electronic countermeasure systems, electronic simulation and training systems, electronic

testing equipment, specialized vehicles, military tanks, robotics and RPVs, ordnance and ammunition, and

mechanical support equipment. AAI's business units are broken out as follows:

- 1. AAI Corporation
- 1.1 Unmanned Aircraft Systems
- 1.1.1 Aerosonde
- 1.2 Services
- 1.2.1 AAI Services Corp
- 1.2.2 McTurbine
- 1.3 Test Systems
- 1.3.1 ESL Defence
- 1.3.2 Symtx
- 1.4 Training Systems
- 1.5 Advanced Programs

Unmanned Aircraft Systems. This unit produces a number of unmanned air vehicles, including the Shadow 200 and Shadow 600 models. Australian UAV producer Aerosonde was added to this segment in 2006.

Services. AAI provides engineering, logistical, and maintenance services through its wholly owned subsidiary, AAI Services Corporation. Key programs are the C-17 Maintenance Training System, T-45 Ground Based Training System, F-22 Maintenance Training System, Electronic Combat Training Simulator, and Compass Call Mission Crew Simulator. *McTurbine Inc*, acquired in 2006, is a wholly owned subsidiary of AAI Services. Its focus is on the maintenance, repair, and overhaul of military helicopter engines.

Test Systems. This unit develops, manufactures, and supports EW test systems. Key programs include the Joint Service Electronic Combat Systems Tester (JSECST), which is employed by all U.S. military branches to ensure that airborne electronic warfare systems function correctly; Advanced Boresight Equipment (ABE) systems, which align avionics and weapon systems on board military aircraft and helicopters; and radar simulators, which realistically simulate threat signals in order to verify the operational status of radar warning receivers and associated cockpit displays and controls. Another part of this segment is the U.K.-based ESL Defence, which designs and produces electro-optical, infrared, and ultraviolet test and simulation products for use on flight lines and in aircraft maintenance facilities. Symtx, acquired in 2006, designs and manufactures test systems for electronic systems and satellites.

Training Systems. AAI provides training systems to the U.S. Navy and international customers to train Combat Information Center personnel and operators on their actual equipment. AAI also provides moving target simulators and EW training systems.

Advanced Programs. This unit is structured to investigate and respond to emerging markets. One recent product includes a gunfire detection system, PDCue, to counter snipers. Advanced Programs is developing new technologies for the next generation of high-performance, lightweight weapons for the U.S. Army utilizing advanced-technology ammunition.

Facilities

The major AAI facilities supporting the company's aerospace and defense programs are listed below.

AAI, PO Box 126, 124 Industry Ln, Hunt Valley, MD USA 21030. Telephone: + 1 (410) 666-1400. Hunt Valley is the headquarters for AAI's operations.

AAI Services Corporation, 318 Clubhouse Rd, Hunt Valley, MD, USA 21030. Telephone: + 1 (410) 667-7170. This facility provides a variety of technical services for government and commercial customers.

AAI Services Corporation, Training and Simulation Operations, 5 Alliance Dr, Goose Creek, SC 29445. Telephone: +1 (843) 574-5200.

ESL Defence Ltd, 16 Compass Point, Ensign Way, Hamble, Southampton, SO31 4RA United Kingdom. Telephone: + 44 0 23 8045 5110. This subsidiary produces electro-optic test and simulation products for use on flight lines and in aircraft maintenance facilities. Web site: http://www.esldefence.co.uk

Aerosonde, Unit 1, 585 Blackburn Rd, Notting Hill, Victoria, Australia, 3168. Telephone: + 61 3 9562 2622. Produces Aerosonde Mk 3 and Mk 4 UAV systems.

Web site: http://www.aerosonde.com/

Symtx, 4401 Freidrich Ln, Bldg 2, Suite 200, Austin, TX 78744. Telephone: +1 (512) 328-7799. Produces test systems and services.

Web site: http://www.symtx.com/

McTurbine Inc, 401 Junior Beck Dr, Corpus Christi, TX 78405. Telephone: +1 (361) 851-1290. Provides T53/ T55 turbine engine repair and overhaul services.

Web site: http://www.mcturbine.com/

AAI

Corporate Overview

AAI designs, produces and supports aerospace and defense systems.

New Products and Services

Shadow 200B. In February 2007, AAI's Shadow 200B unmanned aircraft system received a special airworthiness certificate (experimental) from the Federal Aviation Administration (FAA) authorizing operations at Benson Municipal Airport, a general aviation facility in southeastern Arizona. The Shadow 200B's airworthiness certificate is the first issued by the FAA permitting an unmanned aircraft to operate at a public-use airport that serves general aviation. It's also the first FAA certificate covering the system's technologically sophisticated automated landing gear. Under the approval, the Shadow 200B unmanned aircraft can be operated for crew training, flight testing, and marketing demonstrations. This is currently the only FAA certification category available to UAV manufacturers.

Shadow TUAV. In May 2006, AAI received an \$87 million contract from the U.S. Army for the production of nine additional Shadow 200 Tactical Unmanned Aircraft Systems (TUAS). The nine systems, which include 36 advanced RQ-7B Shadow 200 aircraft, 18 One System ground control stations, and associated components and support equipment, were to be delivered between April 2007 and March 2008.

F-22 Maintenance Trainers. In April 2006, AAI Services Corporation was awarded two contracts by Boeing totaling \$48.5 million to provide maintenance trainers in support of U.S. Air Force F-22 Raptor combat aircraft. AAI Services will build a new landing gear trainer and a new armament trainer, in addition to upgrading an existing armament trainer and aft fuselage trainer for the service's newest multirole tactical aircraft. AAI Services managed the contract and performed the work at its facility located near Charleston, South Carolina. The finished systems were to be delivered to Sheppard Air Force Base, Wichita Falls, Texas, in 2007.

Lightweight Machine Gun and Ammunition. In March 2005, AAI was selected by the U.S. Army for Phases II and III of the Lightweight Machine Gun and Ammunition (LMGA) program. The incrementally funded contract value is, potentially, \$23.9 million. In April 2004, AAI was one of two companies selected for the first phase of the LMGA development program, a segment valued at \$1.6 million. In the latest action, AAI has received the sole award for Phases II and III, with an initial funding increment of \$6.5 million. The contract will focus on development of a family of high-performance, lightweight weapons utilizing advanced-technology ammunition. The program is intended to replace existing light-caliber and medium-caliber machine guns.

Plant Expansion/Organization Update

No recent plant expansion or organizational changes have been announced by AAI.

Mergers/Acquisitions/Divestitures

Textron Acquires United Industrial. In December 2007, Textron completed its acquisition of United Industrial Corporation (UIC) in a cash transaction valued at approximately \$1.1 billion. UIC's sole subsidiary, AAI, is now part of Textron's Bell segment, with the majority of the business operating within Textron Systems Corporation. Textron Systems makes precision weapons, surveillance systems, aircraft control systems, specialty marine craft, and armored vehicles for the defense, homeland security and aerospace markets. The deal was first announced in October 2007.

Symtx Acquired. In November 2006, AAI acquired Symtx for \$34.3 million in cash. Based in Austin, Texas, Symtx designs and manufactures high-performance functional test solutions for electronic systems and satellites. Symtx's customers include major defense and aerospace prime contractors, and the U.S. military. Symtx and its 169 employees operate as a wholly owned subsidiary of AAI.

McTurbine Acquired. In November 2006, AAI acquired McTurbine, located in Corpus Christi, Texas, for \$31 million in cash. McTurbine provides maintenance, repair and overhaul services for military helicopter engines. In addition, the company is an authorized service center for Honeywell and Goodrich Corporation, providing overhauls of T53 and T55 turboshaft helicopter engines, as well as T53 fuel control units and governors.

Aerosonde Acquired. In June 2006, AAI Corporation acquired privately held Aerosonde Pty Ltd and Aerosonde North America Inc in a \$6.5 million deal. Aerosonde, based in Victoria, Australia, manufactures and develops UAVs for civil and military customers in Australia, Asia, and North America. Aerosonde North America operates the Aerosonde UAV in support of R&D and weather forecasting requirements of U.S.-based customers, including the U.S. Air Force, the

National Oceanic and Atmospheric Administration, and NASA.

Allied Aerospace Assets Acquired. In February 2006, AAI acquired the UAV-related assets and intellectual property of Allied Aerospace Industries Inc. Allied Aerospace, based in Newport News, Virginia, has designed, developed, and successfully test-flown prototypes of a high-speed, scalable, vertical takeoff and landing (VTOL) UAV known as iSTAR (intelligence-gathering, surveillance, target acquisition, and reconnaissance). AAI will combine Allied Aerospace's San Diego operations with its own Unmanned Aircraft Systems division in Hunt Valley. Terms were not disclosed.

ESL Acquired. In April 2005, AAI completed the acquisition of ESL Defence Ltd (ESL), an electronic warfare systems company based in the United Kingdom, for approximately \$10 million in cash. Headquartered in Hamble, England, ESL produces electro-optic test and simulation products for use on flight lines and in aircraft maintenance facilities. The simulators are used to assess the operational readiness of sophisticated missile warning and countermeasure systems used on military aircraft. ESL's electro-optic simulators are also used at military test, evaluation, and training ranges to evaluate the effectiveness of new self-protection systems and to train pilots for combat readiness. In addition, ESL specializes in electronic-warfare-related research, study, and in-service support activity for U.K. government agencies, and for prime contractors both in the United Kingdom and in the United States.

Teaming/Competition/Joint Ventures

Aerial Common Sensor. In January 2008, Northrop Grumman announced that it will lead a team to compete for the ACS program. Northrop Grumman's ACS team includes AAI Corporation, General Dynamics C⁴ Systems, and L-3 Communications Corp. The announcement did not mention any aircraft manufacturers. The U.S. Army expects to award a development contract in 2009.

BAE Systems. In October 2003, BAE Systems Australia and AAI agreed to compete as Team Shadow for Australia's JP129 program. The team offered the Shadow 200 system for the competition. In late 2005, the team lost out to Boeing Australia.

Pioneer UAV Inc. In 1991, Israel Aircraft Industries (now Israel Aerospace Industries) and AAI formed a joint venture, Pioneer UAV Inc, to produce the Pioneer UAV. The Pioneer was procured by the U.S. Navy.

Web site: http://www.puav.com/

Raytheon. In February 1996, Raytheon and AAI teamed to enter the Pentagon's Tactical Unmanned Aerial Vehicle competition. AAI provided its flight-proven Shadow 200 close-range UAV, while Raytheon acted as the overall prime contractor, providing systems integration and ground control equipment. The team won the competition in 1999.

Financial Results/Corporate Statistics

With AAI's acquisition by Textron complete, individual financial results for AAI are no longer reported. For 2006, United Industrial posted sales of \$564.0 million, up 17 percent over sales of \$480.2 million in 2005. The company reported net income of \$47.2 million, compared with net income of \$40.9 million in 2005. The losses in 2002-2003 were attributed to the company's discontinued transportation business. Results have been restated to conform to the company's latest presentation.

Y/E December 31	2001	2002	2003	2004	2005	2006
(USD millions)						
Net Sales	238.5	229.2	282.4	355.1	480.2	564.0
Percent Gov't	62.0	62.0	80.0	91.0	94.0	93.0
Net Income	5.3	-39.1	-5.8	26.8	40.9	47.2
R&D Expenditures	3.6	4.4	4.8	5.3	10.1	14.8
Backlog (Defense)	201.2	296.1	318.3	380.6	487.4	662.2
Debt/Equity Ratio	-	-	-	3.89	4.76	1.94



Industry Segments

A breakdown of AAI Corporation's sales by product line for the past three years is provided below. Note that totals may have been rounded.

SALES	2004	2005	2006
(USD millions)			
Unmanned Systems	203.3	302.7	367.5
Services & Logistics	69.2	94.6	114.5
Test Systems	39.0	45.1	45.8
Training Systems	17.5	16.5	15.0
Advanced Programs	21.9	17.4	21.1
Other	4.0	3.9	0.1
TOTAL	354.9	480.2	564.0



Strategic Outlook

United Industrial Corporation had become an attractive takeover target, and in late 2007 Textron claimed the prize and acquired AAI in order to build up its UAV system offerings.

"AAI is a superb strategic fit for Textron," said Textron Chairman, President and CEO Lewis B. Campbell. "It is in perfect alignment with our strategy to add important capabilities to our existing aircraft and defense businesses, adding new products and capabilities to further serve our government, military and homeland security customers. Textron is a recognized leader in manned, fixed and rotary wing aircraft. The addition of AAI broadens our leadership into unmanned vehicles. This combination of capabilities represents a very powerful growth platform, both in the near and long term."

Prior to Textron's purchase, AAI made several acquisitions that deepened its capabilities and expanded operations into complementary markets. Specifically, the company acquired ESL, which produces electro-

optical test and simulation products; Allied Aerospace and Aerosonde, manufacturers of UAV Systems; McTurbine, a provider of helicopter maintenance, repair, and overhaul services; and Symtx, which specializes in electronic test systems.

AAI will now operate as a wholly owned subsidiary under Textron's Bell segment, with the majority of the business operating within Textron Systems Corporation.

Frank Tempesta, president of Textron Systems, explained, "AAI's products complement our existing portfolio and provide an essential building block for our precision engagement strategy. AAI will enable us to deliver broader and more integrated solutions to our customers – whether deploying our precision weapons, networking our unattended ground sensors, integrating with our intelligence software, or benefiting from the service and logistics that support them all. Just as important, we are also gaining some of the industry's top talent and AAI's established, highly loyal customer base."

Prime Award Summary

The following chart and table show the dollar volume of federal prime contracts awarded United Industrial from 2003 through 2007, and the top 100 rank of the company in terms of federal contracts for each of the five years. For more information, refer to Appendix I, "Recipients of Federal Contract Awards."

United Industrial (USD millions)	2003	2004	2005	2006	2007
Rank	-	_	87	81	86
Total Federal Awards	257.0	341.7	484.0	561.0	557.0



Source: http://www.usaspending.gov/fpds/

Program Activity

Some important aerospace and government programs currently under way at AAI are listed below. The briefs are intended to provide a listing of programs that are of major importance to the company. For detailed information on or analysis of specific aerospace and defense programs or equipment, please refer to the appropriate Forecast International binder (for example, *Civil Aircraft, Military Aircraft, Military Vehicles, Warships, Missiles, Electronic Systems,* and *Aviation Gas Turbines*). The following are the company's business interests:

- Defense Electronics
- Systems Integration
- Training Systems
- Unmanned Vehicles

Electronic Programs

Compass Call

This is a U.S. DoD/USAF offensive, wide-area coverage counter-information system. It also refers to Lockheed EC-130H Hercules aircraft configured to



perform these tactical command, control, and communication countermeasures. AAI serves as a major subcontractor to BAE Systems on the Compass Call mission crew simulator.

JSECST

Joint Services Electronic Combat Systems Tester (JSECST) systems quickly test the accuracy of electronic warfare and avionics systems in a variety of aircraft, assuring flight crews that their fighters, transports, or rotorcraft are mission ready. AAI has provided JSECST core test sets for use by the U.S. Navy and Marine Corps in support of F/A-18A/B, F/A-18C/D, F/A-18E/F, AV-8B, and F-14B/D aircraft, as well as spare parts and data.

JSTARS

JSTARS (Joint Surveillance Target Attack Radar System) is an airborne, multimode, advanced synthetic aperture radar system. The nomenclature established for the airborne radar system is APY-3. The ground-station module nomenclature is the TSQ-168. AAI is the prime contractor on the JSTARS mission equipment maintenance trainer.

OBEWS (MSQ-T22(V))

The On-Board Electronic Warfare Simulator is an EW training system carried on aircraft. An OBEWS proofof-concept prototype was developed and flight-tested at Eglin AFB, Florida, through 1989. The goal was to evaluate the operational effectiveness and suitability of OBEWS as an electronic combat training concept. A prototype was developed by AAI and consisted of a pod-mounted system interfaced with the F-16's ALR-69 radar warning receiver.

U.S. Army Electronic Proving Ground

The U.S. Army Electronic Proving Ground (USAEPG), Fort Huachuca, Arizona, provides a major field site for conducting communications and electronics technical tests. USAEPG is unique in having a naturally quiet electromagnetic environment, expansive real estate, low annual rainfall, and the special facilities in place to accomplish the Army's mission. This mission involves conducting developmental tests of communications, command and control, optical/electro-optical, signal intelligence, and electronic warfare equipment and systems, and then evaluating and reporting on the results of the tests. AAI is one of numerous contractors involved with this facility.

Ordnance Programs

Advanced Boresight Equipment (ABE)

ABE is an automated process designed to handle the arduous boresighting task of precision components. According to AAI, ABE promises to revolutionize

boresighting, increasing accuracy while slashing production and maintenance costs by means of a stateof-the-art portable system that utilizes computer, laser, and gyroscopic technology. (For more information on ABE, see the Web site: http://www.boresight.com)

Training and Simulation Programs

B-52/KC-135 Weapon System Trainers

During the 1980s, AAI was responsible for the operation and maintenance of the weapon systems trainers used by crews of B-52 bombers and KC-135 refueling tankers. AAI also provided ATE equipment to test the strategic radar systems and avionics on Air Force B-52 bombers.

Moving Target Simulator (MTS II)

The MTS is used to train gunners on Stinger missiles, as well as on other tactical hand-held and vehicle-mounted air defense weapons. Inside the dome, gunners see, hear, and feel real battle conditions. Changing weather conditions, countermeasures, the infrared effects of aircraft and clouds, and a variety of light conditions are simulated in situations involving as many as three aircraft overhead. Selectable backgrounds provide 360 degrees of arctic, mountain, urban, coastal, desert, and other panoramas. The training sequence is computer controlled, and results are automatically scored. MTS II has been purchased by the U.S. Marines and by Turkey. Earlier versions are in use by the U.S. Army at numerous locations worldwide.

Unmanned Vehicle Programs

Pioneer

The Pioneer is a short-range remotely piloted vehicle for tactical over-the-horizon surveillance and reconnaissance. Pioneer was developed/produced by Mazlat Ltd, a joint company founded by (then) Israel Aircraft Industries (IAI) and Tadiran. Mazlat has its headquarters in Nes Ziona, Israel. All work related to the U.S. Pioneer program falls under the auspices of a joint company formed by IAI and AAI known as Pioneer UAV Inc. While no new production is expected, plans to retire the Pioneer UAV have been changed, and this UAV could remain on active duty until 2009 or even 2012.

Scout

Scout is a remotely piloted vehicle for real-time battlefield reconnaissance/surveillance. The Scout was originally developed and manufactured by (then) Israel Aircraft Industries Tel Aviv, Israel. AAI is a licensed manufacturer of the Scout system. Production of the Scout air vehicle has been concluded. Future production will be on an as-needed basis.

Shadow 200 TUAV

This features a new fixed-wing pusher propeller UAV design, resembling a small Pioneer airframe. The cantilever-wing vehicle has twin tail booms. The Shadow has a three-hour endurance and a service ceiling of 15,000 feet, and can carry a 50-pound

payload. Maximum launch weight is 215 pounds. The Shadow UAVs are targeted toward international customers because of their low cost and off-the-shelf capability. The United States selected AAI's Shadow 200 to meet its Tactical UAV requirement in December 1999 (also see **New Products and Services**).

U.S. Contract Awards

Below is a listing of major contracts awarded to AAI from the U.S. government over the past few years (contracts as of press date).

	Award		
Date	(USD millions)	Contract #	Description
2006			
3/31/06	5.6	N68335-06-C-0228	18 JSECST units.
5/10/06	87.1	W31P4Q-06-C-0292	Full-rate production of the Shadow UAV.
5/10/06	65.5	W31P4Q-06-C-0256	Contractor logistics support of the Shadow UAV.
7/3/06	11.9	W31P4Q-05-G-0004	Tactical Common Datalink System dual demonstration for the Shadow UAV.
10/5/06	32.6	W31P4Q-06-C-0292	Production of the Shadow UAV & associated support equipment.
10/5/06	13.2	W31P4Q-06-C-0292	Engine modification kits & spares for the Shadow 200 UAV.
10/5/06	11.4	W31P4Q-06-C-0256	Special unit training for the Shadow UAV.
11/27/06	40.7	W31P4Q-06-C-0256	Performance-based logistics for the Shadow UAV.
12/4/06	9.9	N68335-04-C-0280	Advanced Boresight Equipment (ABE) for AH-1Z, AH-1W & MH-60R aircraft.
2007			
2/14/07	61.2	W31P4Q-06-C-0256	Performance-based logistics for the Shadow UAV.
2/22/07	24.9	N00164-07-D-8965	Repair & spare parts in support of Battle Forces Tactical Trainer, shipboard system trainer.
3/9/07	16.2	W31P4Q-06-C-0256	Reset/refurbishment of the equipment associated with the Shadow UAV.
3/26/07	5.5	N68335-07-C-0246	Organizational-level Electronic Warfare Test Program Set (OEWTPS) for the CV-22's ALQ-211, including the Antenna Coupler Interface Group (ACIG).
6/14/07	39.2	W31P4Q-06-C-0292	Shadow UAVs & support equipment.
8/29/07	5.7	W58RGZ-06-C-0190	Remote video terminal systems.
9/18/07	13.2	W58RGZ-06-C-0190	One remote video terminal system plus multi-directional antenna systems.
11/1/07	75.2	W58RGZ-08-C-0023	Full-rate production of Shadow UAV & support equipment.
11/1/07	25.9	W58RGZ-08-C-0016	Shadow UAV unit training in support of Operation Iraq Freedom & Operation Enduring Freedom.

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