

# ARCHIVED REPORT

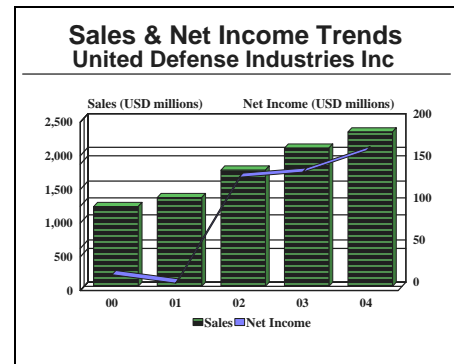
For data and forecasts on current programs please visit

[www.forecastinternational.com](http://www.forecastinternational.com) or call +1 203.426.0800

## United Defense Industries Inc - Archived 5/2007

### Outlook

- In 2005, BAE Systems acquired United Defense in a \$4 billion deal
- Deal strongly establishes BAE Systems as a key military vehicle producer
- This update will now be archived and the data merged with the BAE Systems report



### Headquarters

BAE Systems Land and Armaments  
(formerly United Defense Industries Inc)  
1525 Wilson Boulevard, Suite 700  
Arlington, VA 22209-2444  
Telephone: + 1 (703) 312-6100  
Fax: + 1 (703) 312-6148  
Web site: <http://www.uniteddefense.com>

In 1994, FMC's Defense Systems business combined with Harsco's BMY Combat Systems to form the jointly owned United Defense LP (Limited Partnership). FMC managed the operation with a 60-percent interest. This operation was subsequently sold to The Carlyle Group in October 1997 for \$850 million.

United Defense Industries Inc was incorporated in 1997 to acquire United Defense LP. Technically, United Defense Industries Inc was a subsidiary of Iron Horse Investors LLC, which was created for the sole purpose of facilitating the acquisition of United Defense LP. Iron Horse is owned by an investment group led by the

Carlyle Group. United Defense was the only asset of Iron Horse. As of February 27, 2004, Carlyle had sold major portions of its original investment in the company, and currently owns approximately 8.5 percent of United Defense's outstanding common stock.

In 2000, United Defense acquired Bofors Defence, a Swedish producer of artillery systems, air defense systems, and precision munitions. In 2002, the company acquired United States Marine Repair Inc (USMR), a provider of ship repair, maintenance, and modernization services to the U.S. Navy and commercial customers. With the acquisition of USMR, United Defense expanded into two separate market areas: Defense Systems and Ship Repair and Maintenance.

In 2005, BAE Systems North America purchased United Defense in a deal valued at \$4 billion. The company has since been renamed **BAE Systems Land and Armaments**. The unit employs about 8,000.

### Structure and Personnel

Thomas W. Rabaut  
President, BAE Systems Land and Armaments

## United Defense Industries Inc

### Product Area

United Defense Industries was managed as follows:

1. Defense Systems
  - 1.1 Ground Systems Division
    - 1.1.1 Marine Corps System
    - 1.1.2 Paladin Production Division
  - 1.2 Armament Systems Division
  - 1.3 Steel Products Division
  - 1.4 International Division
    - 1.4.1 Bofors Defence
    - 1.4.2 FNSS-Turkey
2. Ship Repair and Maintenance
  - 2.1 United States Marine Repair

**Ground Systems Division.** This unit provides engineering and program management for the M2 Bradley family of vehicles, the M109 howitzer programs, the M88A1 and M88 HERCULES recovery vehicle programs, and the development of the Grizzly mine-clearing vehicle. In addition, Ground Systems develops new technologies for vehicles such as the M113 and the Armored Gun System. This division is also working on next-generation systems like the Future Scout and Cavalry System (FSCS).

Marine Corps Systems. Programs specifically for the U.S. Marine Corps include the M88 and the AAV7A1 Amphibious Assault Vehicle (AAV).

Paladin Production Division. The latest generation of the M109 self-propelled howitzer is the M019A6 Paladin. The other component of the system is the M992 Field Artillery Ammunition Supply Vehicle (FAASV).

**Armament Systems Division.** Focusing on naval systems, this unit's major products include the Mk 41 Vertical Launching System (VLS), the 54-caliber Mk 45 naval gun system, and the Advanced Gun System for the Navy's DD-21 class destroyer. The division also performs other defense work and provides support for its systems with training, field service, provisioning, and technical publications.

**Steel Products Division.** This operation designs and produces military track equipment. It also runs an armored vehicle overhaul and conversion facility that refurbishes and converts the M113 series of vehicles for

the U.S. Army and allied forces. The Steel Products Division has expanded its operations in recent years into commercial endeavors. These civil projects focus on mining, public transportation, oil field equipment, and various valve markets.

**International Operations.** The company operates a subsidiary in Sweden, and joint ventures and coproduction programs in countries throughout the world. Current operations include Bofors Defence, joint ventures in Saudi Arabia and Turkey, and coproduction programs in Egypt, South Korea, and Japan.

Bofors Defence. Swedish Bofors Weapon Systems was acquired by United Defense in September 2000 from Celsius AB, and was subsequently renamed Bofors Defence. Bofors is active in four major business areas: Field Artillery Systems, Air Defence and Naval Gun Systems, Combat Vehicle Systems, and Product Support. Bofors' key competencies are in the area of intelligent munitions and systems. Following the acquisition of UDLP by BAE Systems, this operation is now called BAE Systems Bofors.

**U.S. Marine Repair.** USMR is America's largest non-nuclear ship repair, modernization, conversion, and overhaul company. USMR operates a total of six shipyards serving government and commercial customers. Norfolk Shipbuilding and Drydock Corporation (Norshipco) located in Norfolk, Virginia, serves the Navy's Atlantic Fleet, Military Sealift Command (MSC), and numerous commercial customers including Disney Cruise Lines and Maersk Lines. Southwest Marine Inc (SWM) maintains two shipyards in California, one in Texas, and one at Pearl Harbor, Hawaii. SWM's San Diego shipyard primarily serves the Navy's Pacific Fleet and also performs some commercial and MSC work. SWM's San Pedro shipyard performs small commercial projects. SWM's Ingleside, Texas, shipyard serves the Navy's mine warfare community. SWM's Hawaii shipyard serves the Navy's Pacific fleet at Pearl Harbor. Finally, San Francisco Drydock Inc, located in San Francisco, California, provides services to MSC and a commercial customer base, including several cruise lines. Following the acquisition by BAE Systems this unit was renamed BAE Systems Ship Repair.

### Facilities

The majority of United Defense's defense equipment and systems business is done at the facilities listed below.

BAE Systems, Inc, 1601 Research Boulevard, Rockville, MD 20850 Telephone: +1 (301) 838 6000. More commonly called BAE Systems North America,

this is the headquarters of BAE Systems plc's operation in the United States.

Web site: <http://www.na.baesystems.com/>

BAE Systems Land and Armaments (United Defense Industries Inc), Headquarters, 1525 Wilson Boulevard, Suite 700, Arlington, VA 22209-2411. Telephone: + 1 (703) 312-6100. Develops technology, including hardware and software, to integrate into the manufacture of tracked vehicles for the U.S. Armed Forces and allied governments.

Web site: <http://www.uniteddefense.com>

## Defense Systems

BAE Systems Ground Systems Division York, PO Box 15512, York, PA 17405. Telephone: + 1 (717) 225-4781. Develops technology, including hardware and software, to integrate into the manufacture of tracked vehicles for the U.S. Armed Forces and allied governments, and is the prime contractor for integrating high-tech systems into the Bradley Fighting Vehicle and across other U.S. Army programs. Other products include the M109 howitzer, the M88A1 and M88 recovery vehicles, and next-generation systems like the Future Scout and Cavalry System (FSCS).

BAE Systems Armament Systems Division, 4800 East River Road, Minneapolis, MN 55421. Telephone: + 1 (763) 572-7615. Manufactures naval gun systems, vertical missile launchers, pointing missile launchers, and submarine systems. It also provides overhaul, repair, and product support.

Armament Systems Division Aberdeen, 3317 8th Ave NE, Aberdeen, SD 57401. Telephone: + 1 (605) 226-2704. This company facility produces loaded VLS canister sets including the Mk 13-0 SM-2, the Mk 14-1 Tomahawk, the Mk 15-0 VLA, the Mk 21 SM-2 Block IV, the Mk 22 NATO Sea Sparrow, and the Mk 18-1 Canister Adapter.

Armament Systems Division Louisville, 163 Rochester Drive, Louisville, KY 40214. Telephone: + 1 (502) 364-6488. Located on the former Louisville Naval Ordnance Station site, this facility is responsible for

## United Defense Industries Inc

naval guns (including the Mk 45, Mk 19, and Mk 24-32), torpedo tubes (including the Mk 32, Mk 29, and Mk 112), decoy launchers (Mk 36), and gun fire-control equipment (including the Mk 96, Mk 92, and Mk 68).

Ground Systems Division, 2830 De La Cruz Boulevard, Box 58123, Santa Clara, CA 95052. Telephone: + 1 (408) 289-2882. This group operates within the U.S. as a major supplier of tracked vehicles to the Army and Marine Corps. The division manufactures military vehicles, including the M2/M3 Bradley infantry fighting vehicle, as well as the LVTP-7 amphibious tracked landing vehicle.

International Division, 2830 De La Cruz Boulevard, Box 58123, Santa Clara, CA 95052. Telephone: + 1 (408) 289-0111. Manufactures ground combat vehicles and naval system components. Also provides product support and training for joint venture and coproduction programs around the world.

BAE Systems Bofors (Bofors Defence AB), 691 80, Karlskoga, Sweden. Telephone: + 46 586 815 00. Acquired in 2000, Bofors Defence is a wholly owned subsidiary of United Defense. The unit develops, markets, and maintains smart weapon systems within the fields of indirect fire, combat vehicle turrets, naval gun, and air defense gun systems.

Web site: <http://www.boforsdefence.com>

BAE Systems Steel Products Division, 2101 West 10th Street, PO Box 1030, Anniston, AL 36201. Telephone: + 1 (205) 237-2841. Manufactures military track, vehicle components, commercial castings, and forging.

Web site: <http://www.spdforgings.com>

## Ship Repair & Maintenance

BAE Systems Ship Repair (formerly United States Marine Repair), 750 West Berkley Ave, PO Box 2100, Norfolk VA 23501. Telephone: + 1 (757) 494-4000. This is the headquarters of USMR. Other facilities are located in San Diego and San Pedro, California; Pearl Harbor, Hawaii; and Ingleside, Texas.

Web site: <http://www.usmarinerepair.com>

## Corporate Overview

BAE Systems Land & Armaments (United Defense Industries) is a leading manufacturer of tracked, armored combat vehicles; weapons delivery systems; and defense systems. The company's most recognized program is the Bradley Fighting Vehicle.

## New Products and Services

**Gladiator TUGV.** On February 10, 2005 Carnegie Mellon University's National Robotics Engineering Consortium (NREC) and United Defense Industries were awarded a \$26.4 million contract with the U.S. Department of Defense's Joint Program Office for Robotic Systems to design, develop, and produce tactical unmanned ground vehicles (TUGVs) for the U.S. Marine Corps. The Gladiator TUGV will provide

## United Defense Industries Inc

the Marine Air-Ground Task Force with a teleoperated unmanned ground vehicle for remote combat tasks, increasing survivability by identifying and neutralizing threats and reducing risk to Marines. Gladiator will provide Marines with remote, unmanned scout, reconnaissance, and surveillance capabilities while the operator remains concealed at a distance. Carnegie Mellon will lead the system development and demonstration phase of the program as prime contractor, working closely with United Defense to draw on its experience in program management, engineering, integration and integrated logistics support tasks, as Gladiator development moves toward production and fielding. Other members of the NREC Gladiator team include General Dynamics Armaments and Technical Products, Tadiran Electronic Systems, and Timoney Technologies Limited.

**LHA and LHD Work.** In January 2005, United Defense's NORSHIPCO was awarded a five-year, multi-ship, multi-option (MSMO) cost-plus incentive-fee contract, potentially worth \$228 million. NAVSEA, the contracting facility, awarded the work on the six LHA and LHD class of amphibious assault ships home ported in Norfolk. The initial \$350,000 award is for advance planning on the first ship in the contract, the USS *Saipan* (LHA 2). The work package, scheduled for completion in 2010, includes the performance of pier side availabilities in the private sector facility and dry docking availabilities in the public shipyard. There will also be continuous maintenance between planned availabilities. If the Navy exercises all options, the value of the contract could reach \$228 million.

**Modular Artillery Charge System.** In February 2004, United Defense successfully fired a 105mm round from a variable volume cannon that uses 155mm modular propellant charges. This innovative system, called the 105mm V2C2 for its Variable Volume Chamber Cannon, has continuously fired rounds at a test facility in Minnesota. The 105mm V2C2 offers the U.S. Army a cost-effective option, should there be a requirement for a new 105mm system. Partnering with Benet Laboratories and Picatinny Arsenal, United Defense built the cannon, which can be integrated with a 20-ton class combat vehicle – complete with automated ammunition handling – or configured as a towed platform to support forced entry operations. With its innovative variable volume chamber, the 105mm V2C2 gives the Army the advantage of using the M231 and M232 Modular Artillery Charge System (MACS) propellant that is already in its inventory. The cannon would thus eliminate the need for an entirely new propellant in order to field a mounted and fully automated 105mm Current Force cannon.

**Future Combat System.** In December 2003, United Defense was awarded a \$2 billion contract by Boeing to begin engineering development and demonstration of five manned ground vehicles (MGVs) that are part of the family of systems for the U.S. Army's Future Combat Systems program. Under this contract, United Defense has responsibility for five MGv variants to include the Non-Line-of-Sight (NLOS) mortar, an infantry carrier vehicle, a medical vehicle, a maintenance and recovery vehicle, and the NLOS cannon, which the Army has identified as critical and integral to the FCS Unit of Action family of systems. An NLOS cannon system demonstrator has been undergoing live fire testing since August and is scheduled to begin mobility testing at Yuma Proving Ground in 2004. The MGv variants will be significantly smaller and lighter than the systems they replace, and are designed to fit into a C-130 airplane. This contract is in addition to United Defense's September 2003 contract award from the Boeing/SAIC Lead Systems Integrator team for two armed robotic vehicle variants. These 5-ton vehicles, controlled remotely, will provide reconnaissance, surveillance, and target acquisition or remotely controlled direct and indirect fires in support of mounted and dismounted operations by FCS Units of Action.

**Next Generation Tactical Wheeled Vehicle.** In November 2003, United Defense was awarded a \$480,000 contract by the National Automotive Center for the Next Generation Tactical Wheeled Vehicle (NGTWV) project. The contract calls for United Defense to define requirements, perform engineering analysis, refine concepts, and conduct trade-off studies to help the U.S. Army meet deployment and sustainment goals for future vehicle programs. This NGTWV concept exploration effort includes modeling and simulation work with a follow-on option for integrating key technologies on a tactical wheeled vehicle demonstrator. Modeling and simulation work, and potentially a vehicle demonstrator, will be provided by the National Automotive Center to the Army's Tank-Automotive and Armaments Command (TACOM) to assist in meeting transformation goals.

**Thunderbolt.** In October 2003, United Defense Industries unveiled Thunderbolt, an advanced armored gun system demonstrator with a 120mm main armament on a light chassis featuring a rugged hybrid electric drive, an enhanced band track system, and a lightweight ballistic composite armor package. Thunderbolt was designed and built at the company's research facilities in Santa Clara, California.

**Excalibur.** In July 2003, United Defense subsidiary Bofors Defence AB was awarded a \$97.6 million contract for the systems development and demonstration

## United Defense Industries Inc

phase of the Excalibur program by Raytheon Missile Systems, the prime contractor. Excalibur is a precision-guided, extended-range 155mm artillery projectile, based on the technology from the previous U.S.-only XM982 program and the U.S.-Swedish Trajectory Correctable Munition cooperative program. The projectile is intended to have a range in excess of 50 kilometers, with accuracy independent of range.

### Plant Expansion/Organization Update

United Defense Goes Public. In December 2001, United Defense Industries priced its initial public offering of 21.1 million shares of common stock at \$19 per share. The company offered 9.25 million shares, with the remainder being sold by certain stockholders of the company. The shares trade on the New York Stock Exchange under the symbol "UDI."

### Mergers/Acquisitions/Divestitures

BAE Systems Buys United Defense. In June 2005, BAE Systems' wholly owned U.S. subsidiary, BAE Systems North America, completed its acquisition of United Defense Industries in a transaction valued at \$4.192 billion.

Following the acquisition, BAE Systems merged its existing land systems activities in the U.K., Sweden and South Africa with United Defense to form the new BAE Systems Land and Armaments operating group. The business, headquartered in the U.S., is being led by Tom Rabaut. The BAE Systems Land and Armaments business group will report to Mark Ronald, president and CEO, BAE Systems Inc.

EPD Container Solutions Acquired. In January 2005, United Defense completed its acquisition of Engineered Plastic Designs Inc, doing business as EPD Container Solutions, of Berthoud, Colorado, for \$8 million. EPD Container Solutions is a full-service provider of specialized containers for military munitions (such as missiles and bombs), as well as containers to handle and transport major subassemblies from aircraft and space systems. The company currently produces containers for the Sidewinder missile, the Joint Air Surface Standoff Missile, and the Longbow/Hellfire II missile. EPD Container Solutions had revenues of \$10 million during FY04 ending September 30. The company currently employs 75 personnel.

Honolulu Shipyard Acquired. In March 2004, United Defense completed its acquisition of the U.S. Navy ship repair business of Honolulu Shipyard Inc (HSI) for \$16.1 million. HSI had revenues of \$40 million in 2003. The new company, Hawaii Shipyards Inc, will continue to partner with Southwest Marine, a unit of

United States Marine Repair, a United Defense subsidiary.

Cercom Acquired. In March 2004, United Defense completed the acquisition of Cercom Inc of Vista, California, a ceramic materials producer and supplier of lightweight ceramic armor, for \$21 million. Cercom revenues exceeded \$17 million in 2003 and were expected to roughly double in 2004. The acquisition boosts United Defense's expertise in designing survivability solutions that already include work in specialty metals and composites. Founded in 1985, Cercom serves markets in armored survivability solutions for personnel protection, helicopters, combat vehicles, and trucks; wafer processing consumable components for semiconductor fabrication; and nuclear pump seals and wear components for industrial products.

Web site: <http://www.cercomceramics.com>

Kaiser Compositek Acquired. In February 2004, United Defense completed its acquisition of the assets of Kaiser Compositek Inc (KCI) for \$8.5 million to enhance and expand the development of highly advanced weapon systems and combat vehicles for the armed forces. KCI, located in Brea, California, is a provider to government and industry sectors with particular emphasis on primary structures fabricated with polymeric composites. Kaiser provides sophisticated design, analysis, prototyping, and development capabilities and has a manufacturing capability with a broad array of composite processes, including filament winding, resin transfer molding, autoclave molding, compression molding, and surface finishing. KCI revenue for 2003 was in excess of \$14 million.

United States Marine Repair Acquired. In June 2002, United Defense Industries completed its acquisition of United States Marine Repair (USMR) for \$316 million. USMR, based in Norfolk, Virginia, is the leading provider of non-nuclear ship repair, modernization, overhaul, and conversion services to the U.S. Navy. United Defense expects the acquisition to add approximately \$200 million in incremental revenue in 2002. United Defense is retaining the management and employees of United States Marine Repair. In the 12-month period ended March 31, 2002, United States Marine Repair reported revenue of \$431.7 million, net income of \$12.3 million, and adjusted EBITDA of \$47.8 million.

Bofors Acquires Cell ITS Defense Unit. In February 2002, Bofors Defence acquired the defense business segment of Cell ITS (Interactive Training and Simulation) in a transaction valued at SEK45 million (approximately \$4.2 million), plus an earn-out based on

## United Defense Industries Inc

future revenue. The addition of Cell ITS simulation and training expertise is expected to significantly strengthen Bofors' combat systems offerings.

### Teaming/Competition/Joint Ventures

**Bath Iron Works.** In March 2004, United Defense announced a teaming agreement between its Southwest Marine (SWM) shipyard in San Diego, California, and Bath Iron Works, a subsidiary of General Dynamics, for accomplishment of the post-shutdown availability work on the USS *Chafee* (DDG 90). The cost-plus-award-fee contract was recently awarded to BIW by Naval Sea Systems Command (NAVSEA). As a team member, SWM anticipates receiving a substantial share of the work under this contract. The first three-month availability, to be accomplished in Pearl Harbor, began in May 2004. If the Navy exercises all options included in the contract, SWM could receive additional work through 2007.

**FNSS-Turkey.** The FNSS Savunma Sistemleri AS (FNSS) joint venture was formed in 1987 to pursue armored combat vehicle sales to the Turkish Army. FNSS consists of United Defense (51 percent) and the Turkish firm Nurol. The initial contract, which became effective in 1989, was for 1,698 vehicles consisting of four types of armored vehicles: personnel carrier, fighting vehicle, TOW missile vehicle, and mortar vehicle, all using a common chassis. The initial production contract for 1,698 vehicles has been completed, and a follow-on contract for 551 additional personnel carriers was signed in October 2000. In August 2000, FNSS signed a second major export order to supply 211 vehicles in 11 configurations to the government of Malaysia. This contract will also include coproduction through a sublicensee company in Malaysia. The orders for the Turkish government and the Malaysian government provided backlog through the end of 2004.

Web site: <http://www.fnss.com>

**Giat Industries.** In March 2004, United Defense Industries and Giat Industries entered into a joint cooperative agreement for United Defense to lead marketing efforts in the United States for Giat Industries' Caesar 155mm, 52-caliber wheeled self-propelled howitzer. The system's mobility, light weight, and C-130 aircraft transportability are key capabilities that address current U.S. requirements. United Defense hopes to demonstrate the system in 2005. The system was previously demonstrated in the U.S. in October 2002 and March 2003.

**Lancer Team.** In April 1997, United Defense teamed with Marconi Electronic Systems Land and Naval Systems (team leader), Raytheon TI Systems Company,

and Alvis Vehicles Ltd to bid for the Future Scout and Cavalry System (FSCS). The FSCS is a replacement for the U.S. Army's M3 Bradley and the British Army's Scorpion family of scout vehicles. The Lancer team is competing against a rival offering from Lockheed Martin and its partners, British Aerospace, General Dynamics Land Systems, and Vickers plc. The development program began in 1998 with an Advanced Technology Demonstration (ATD). This phase was followed by engineering and manufacturing development, which will conclude in 2006. Tentative requirements are 1,700 vehicles for the U.S. Army and 400 vehicles for Britain. In February 1999, the Lancer team was awarded a \$147 million contract for the ATD phase of the FSCS program.

**Northrop Grumman.** In December 2004, Northrop Grumman and United Defense Industries teamed to provide the U.S. Army with a ground-based laser defense system designed to protect U.S. soldiers against a variety of current and emerging threats. The agreement combines Northrop Grumman's high-energy laser systems with United Defense's expertise in combat vehicle and armament systems integration, rapid prototyping, and manufacturing. Northrop Grumman's Space Technology sector will lead the team as the developer of laser systems, with United Defense integrating the technology on hybrid-electric drive combat vehicles produced by United Defense.

**OWR.** In June 2004, United Defense Industries and OWR, AG of Germany, signed a joint marketing and cooperation agreement to provide decontamination compounds and applicators to the United States for Department of Defense and Department of Homeland Security chemical and biological decontamination requirements.

**Swiss Ordnance.** In May 1998, United Defense and Swiss Ordnance Enterprise agreed to internationally market the Swiss upgrade for M109 self-propelled howitzers. This upgrade, developed for the Swiss Army, features an extended-range 47 caliber cannon, semi-automatic loader, navigation and positioning system, and improved electronics. Per this agreement, United Defense will leverage its position as prime contractor for M109 systems and its worldwide marketing presence to sell the Swiss upgrade options. Swiss Ordnance Enterprise will support United Defense marketing, furnish Swiss upgrade components as desired by customers, and provide technical support.

**United Defense Systems-Arabia.** Formed in 1994, this is a joint venture of United Defense (51 percent) and Al-Hejailan Projects Engineering Co in Riyadh, Saudi Arabia. The business provides services for logistics support and maintenance of Saudi Arabia's

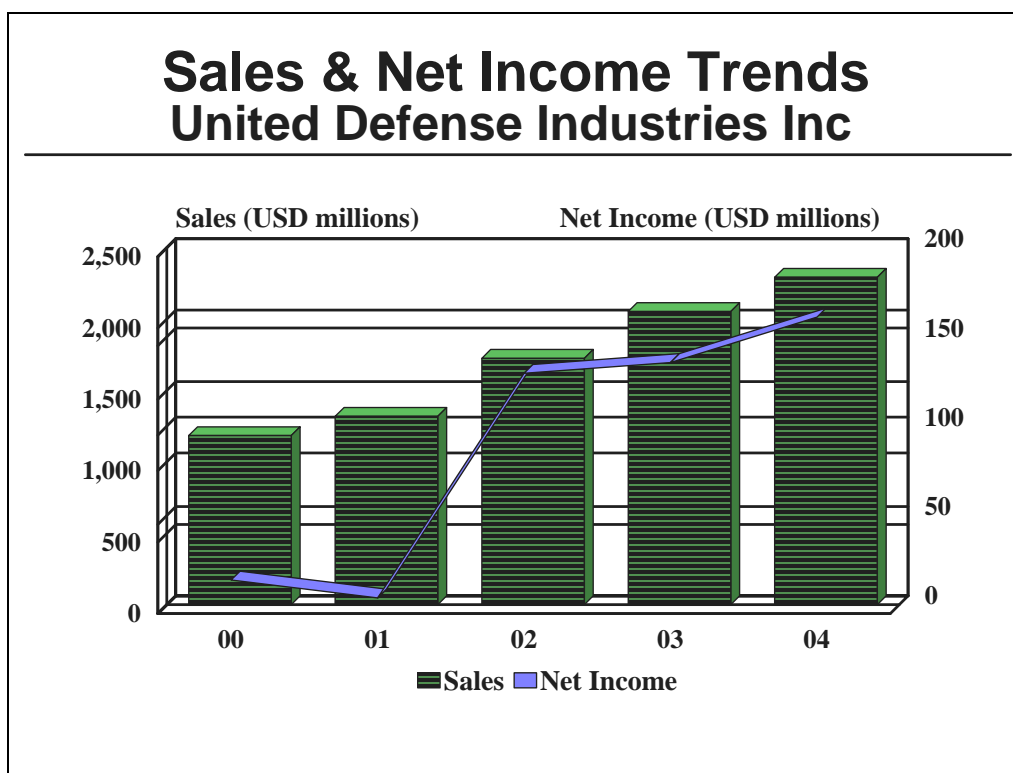
United Defense Industries Inc

fleet of Bradley and M113 fighting vehicles. In March 2003, United Defense sold its interest in the venture to Al-Hejailan for \$405,000.

## Financial Results/Corporate Statistics

2004 was the last year of UDLP's independence, financial information is now part carried under BAE Systems. Revenues for 2004 were \$2.23 billion, up 12 percent over 2003 revenues of \$2.05 billion. Net income for 2004 increased to \$166.1 million, compared with \$140.6 million in 2003. The acquisition of USMR in 2002 accounted for almost two-thirds of the revenue growth for the year. The 2002 results were also favorably impacted by the reversal of the company's \$50 million valuation allowance against deferred tax assets that reduced the tax provision. According to the company, the decline in net earnings for 2001 was due to one-time charges associated with its public offering. Percent government figures are estimated for 1998-2000. Debt/equity ratio is calculated from the company's long-term debt divided by shareholder equity.

Y/E December 31	1999	2000	2001	2002	2003	2004
(USD millions)						
Sales	1,213.5	1,183.9	1,318.5	1,725.3	2,052.6	2,292.4
Percent Govt	80.0	70.0	77.0	79.0	78.0	NA
Net Income	2.9	18.8	8.8	134.6	140.6	166.1
R&D Expenditures	12.8	15.8	23.7	27.6	29.8	32.6
Backlog	1,400.0	1,900.0	1,900.0	2,000.0	2,100.0	2,100.0
Debt/Equity Ratio	-	5.88	-2.54	-19.4	4.13	NA



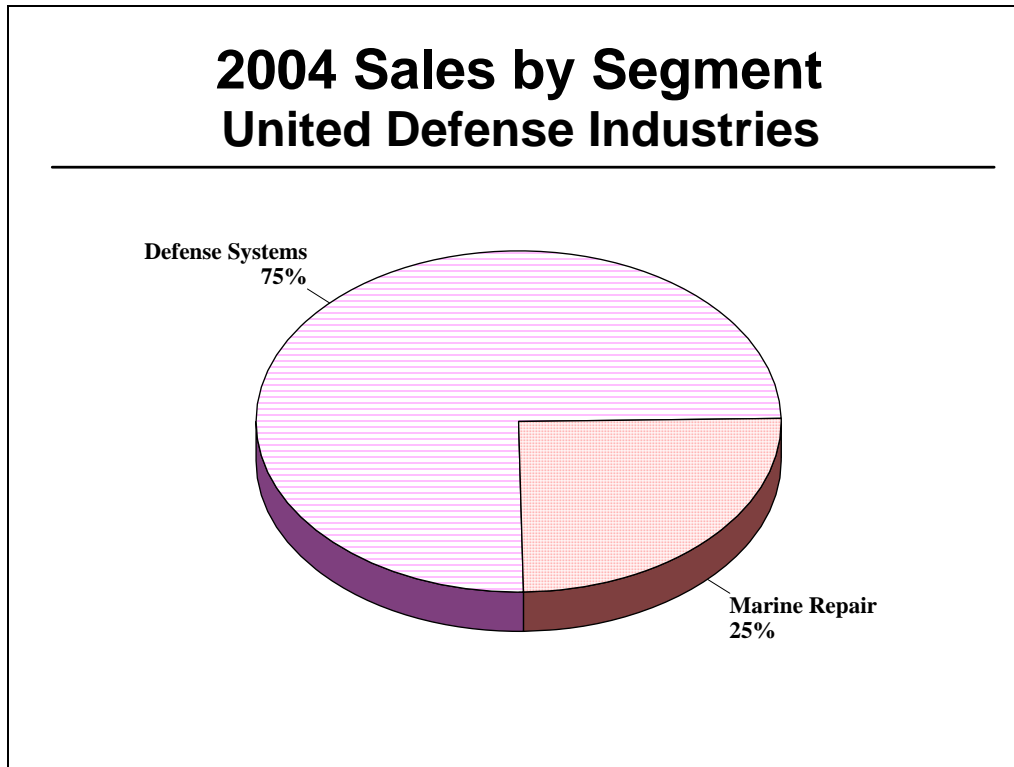
### Industry Segments

A breakdown of United Defense's sales by program is given below.

SALES	2001	2002	2003	2004
(USD millions)				
<b>DEFENSE SYSTEMS</b>				
Bradley Family of Vehicles	275.7	335.9	292.6	368.9
Naval Ordnance	230.7	219.0	269.9	353.8
Vertical Launch System	85.4	114.5	115.4	119.7

## United Defense Industries Inc

Combat, Engineering, & Recovery	102.0	147.8	99.6	91.7
Future Combat Systems	-	-	239.4	220.4
Artillery Systems	292.1	309.7	108.4	144.5
Assault Amphibious Vehicles	55.3	65.3	132.0	68.2
Other	277.3	277.7	250.5	352.2
<b>SHIP REPAIR</b>			0	0
Ship Repair and Maintenance	-	255.4	545.3	573.0
<b>TOTAL</b>	<b>1,318.5</b>	<b>1,725.3</b>	<b>2,053.1</b>	<b>2,292.4</b>



## Strategic Outlook

In mid-2005, BAE Systems plc of the U.K. acquired United Defense in a more than \$4 billion deal that will give the firm a bigger piece of the U.S. defense budget. The deal has pushed that BAE Systems, which is already the largest non-U.S. contractor to the U.S. Defense Department, into the number seven spot of top DoD contractors. Further, the acquisition puts BAE Systems well ahead of its European rivals in gaining market penetration in the U.S.

In 2004, BAE Systems expanded its military vehicle operations by beating General Dynamics to acquire Alvis. Alvis was subsequently combined with RO Defense into a new Land Systems business. With the deal for United Defense expected to pass muster with regulators, this unit will dramatically expand by the end of 2005, further solidifying BAE Systems' position as a military vehicle contractor.

To enable BAE Systems to better serve its customers, the company merged its existing land systems activities in the U.K., Sweden and South Africa with United Defense to form a new **BAE Systems Land and Armaments** operating group. The new unit will deliver a broad range of integrated battlefield systems, military vehicles, artillery, naval guns, missile launchers, and precision munitions.

Mark Ronald said, "With a long track record of integrating new acquisitions, improving performance and achieving superior growth, BAE Systems is proud to be working with the United Defense management team to create a world-class transatlantic land and armaments business. We are now better positioned to meet the ever more demanding requirements of our military customers with innovative capabilities, products and through-life support and services."



United Defense Industries Inc

As a result of the global war on terrorism and ongoing international peacekeeping operations, the U.S. Department of Defense has significantly realigned budget priorities with an increased emphasis on land systems, including the refurbishment and upgrade of existing vehicles and equipment. The new BAE

Systems Land and Armaments business is well placed to meet these emerging customer requirements. The transaction also increases BAE Systems' through-life support and services capabilities by adding to its operations the U.S. Navy's largest non-nuclear ship repair and overhaul business.

## Prime Award Summary

### Department of Defense Top 100 Companies and Their Subsidiaries

The following charts and tables show the rank of United Defense Industries Inc relative to the 100 companies receiving the largest dollar volume of prime contract awards for 2001 through 2005, along with supporting data. Also shown is the value of DoD contracts received by the company from 2001 through 2005. For more information, refer to Appendix 1, *100 Companies Receiving the Largest Dollar Volume of Prime Contract Awards*.

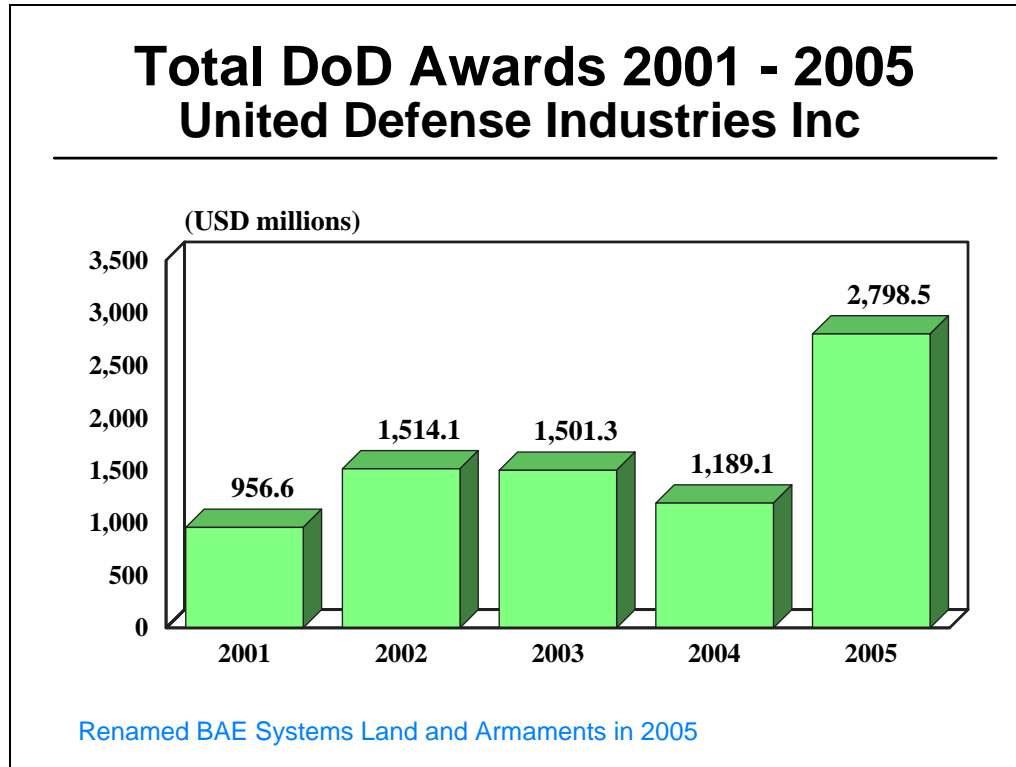
Awards from 2003 reflect United Defense Industries Inc as a subsidiary of Iron Horse Investors, which is in turn owned by The Carlyle Group. The figures in this section therefore reflect UDI's parent company, Carlyle. For clarity's sake, Total DoD Awards is for The Carlyle Group as a whole, with Iron Horse Investors' portion broken out. Government documents detail 2002 data as United Defense Industries Inc only.

Following the acquisition by BAE Systems in 2005, United Defense fell under that company's auspices as BAE Systems Land and Armaments. The figures for 2005 therefore reflect BAE Systems plc's total awards. For clarity's sake, 2005 Total DoD Awards is for BAE Systems plc as a whole, with BAE Systems Land and Armaments' portion broken out.

<u>The Carlyle Group /BAE Systems</u> (USD millions)	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>
Rank	11	12	15	20	7
Total DoD Awards	1,232.3	-	1,670.2	1,442.7	5,582.6
Iron Horse Investors /United Defense Industries Inc/BAE Systems Land and Armaments	956.6	1,514.1	1,501.3	1,189.1	2,798.5

Source: [http://siadapp.dior.whs.mil/procurement/historical\\_reports/statistics/p01/fy2005/P01FY05-Top100-table2.pdf](http://siadapp.dior.whs.mil/procurement/historical_reports/statistics/p01/fy2005/P01FY05-Top100-table2.pdf)

## United Defense Industries Inc

**Fiscal Year 2004 - Prime Contract Awards**

This table gives the total net value of awards for both the parent company and its subsidiaries for FY2004. In some cases, the parent company receives no awards itself, but appears on the list because of its subsidiaries. The table also shows what percentage of the total DoD awards each company's awards represent.

<u>The Carlyle Group - Prime Contracts - Rank 20</u>	<u>USD Subtotal</u>	
Dr Pepper-Seven Up Bottling	34,544	
Empi Inc	17,484	
Horizon Lines LLC	2,299,744	
Iron Horse Investors LLC (United Defense Industries Inc)	1,189,132,053	
Lear Siegler Services Inc	216,070,918	
Prager Inc	301,164	
Rexnord Industries Inc	6,018,424	
Vought Aircraft Industries Inc	28,806,085	
<b>TOTAL /% of total</b>	<b>1,442,680,416</b>	<b>/0.63%</b>

Source: <http://web1.whs.osd.mil/PEIDHOME/PROCSTAT/P01/fy2004/top100.htm>

**Fiscal Year 2004 - RDT&E Contract Awards**

This table presents summary data on the contractor's volume in DoD awards for Research, Development, Test, and Evaluation (RDT&E) work during FY2004. RDT&E work can include research (basic and applied) and development (exploratory, advanced, engineering, operational systems, or management and support services). The table also shows what percentage of the total RDT&E awards each company's awards represent. For more details please refer to Appendix II, *Top 100 DoD Contractors Receiving Contract Awards For Research, Development, Test, and Evaluation*. Note: RDT&E figures are not included in the Prime Contract award chart above.

**The Carlyle Group - RDT&E - Rank 68**

<u>State</u>	<u>City</u>	<u>Location USD</u>
Alabama	Anniston	363,935
California	Santa Clara	21,904,428

United Defense Industries Inc

Minnesota	Minneapolis	12,368,182	
Minnesota	Minneapolis-St. Paul	114,377	
Penn	York	-523,102	
Virginia	Dahlgren	603,720	
<b>TOTAL /% of total</b>		<b>34,831,540</b>	<b>/0.11%</b>

Source: [http://web1.whs.osd.mil/PEIDHOME/PROCSTAT/P02/fy2004/P02\\_04.pdf](http://web1.whs.osd.mil/PEIDHOME/PROCSTAT/P02/fy2004/P02_04.pdf)

## Program Activity

Some important aerospace and government programs currently under way at United Defense are listed below. The following is an outline of the company's business interests:

- Military Vehicles
- Missiles
- Ordnance Systems
- Ship Repair & Maintenance
- Unmanned Vehicles

### Military Vehicle Programs

#### **AAV-7/LVTP-7**

The AAV-7/LVTP-7 is a tracked, amphibious armored vehicle developed and manufactured by United Defense. The AAV7/LVTP-7 is in service with the United States Marine Corps, as well as with several other nations. A number of modernization and retrofit programs are in various stages of development or implementation for this vehicle.

#### **Armored Infantry Fighting Vehicle**

The configuration of the Armored Infantry Fighting Vehicle followed the improvements to the basic M113, but it includes an Oerlikon-Contraves 25mm model KBA cannon in a new turret and a redesigned commander's cupola with a 7.62mm MAG 58 machine gun. In January 1988, Turkey selected the Armored Infantry Fighting Vehicle as its new infantry fighting vehicle. Local assembly and production of the Armored Infantry Fighting Vehicle is being carried out by United Defense's Turkish partner, NUROL Defense Industries of Turkey; United Defense owns 51 percent of NUROL. The manufacture of the Armored Infantry Fighting Vehicle by United Defense has long been dormant but could be resumed on the receipt of production orders.

#### **M1 Grizzly**

Following the demise of the Counter Obstacle Vehicle program, the U.S. Army still has a requirement for a Combat Mobility Vehicle as part of its Heavy Forces Modernization. The Grizzly vehicle (formerly called the Combat Mobility Vehicle-Breacher) is based on an M1 Abrams chassis and will be fitted with various systems to meet specific user requirements on the

battlefield. Systems will include an excavating arm, a dozer blade, and a mine-clearance system. The U.S. Army has effectively terminated the Grizzly program in order to fund the transformation effort.

#### **M2/M3 Bradley**

United Defense's largest military program is production of the Bradley Fighting Vehicle System. The serial production of the Bradley M2/M3 is dormant, but manufacture of variants and the base chassis is ongoing. The development of new variants continues. The vehicle is in service with the United States Army and in Saudi Arabia. Several modernization and retrofit programs are in various stages of development and implementation.

#### **M88/M88A2 HERCULES**

The M88 is an armored recovery vehicle that hoists, winches, tows, and bulldozes for the recovery and maintenance of tanks. The M88A2 performed extremely well in Operation Iraqi Freedom. Additional new-build vehicles are now being made for the U.S. Army and Marines. A licensed coproduction program in Egypt is ongoing.

#### **M992**

FAASVs are needed to support HIP M109A6 artillery units. They ferry ammunition, personnel, and supplies up to the fire units. The U.S. Army has reaffirmed the need for one FAASV for each HIP, establishing a market for some 300 additional FAASVs. However, the need to cut the budget will probably diminish the urgency of this requirement and result in upgrades of existing vehicles rather than new production. Production of the M992 went dormant in 1994.

#### **M9 Armored Combat Earthmover**

The ACE is an earthmoving vehicle used by combat engineers in support of armored battalions. It is designed for frontline operation and used in conjunction with tank warfare. ACEs can dig in armored and mechanized units to hold a line against attack.

## United Defense Industries Inc

### M8 Armored Gun System

This is a light tank specially designed for use with the light/airborne forces of the U.S. Army. The Armored Gun System is to replace the obsolescent M551 Sheridan light tank/reconnaissance vehicle. Since the U.S. Army's 1996 cancellation of the program, United Defense has been marketing the M8 Armored Gun System on its own. In late 1999, the M8 Armored Gun System was evaluated at Fort Knox, Kentucky, as part of a general evaluation of armored vehicles to outfit the U.S. Army's new medium brigades. Following additional competitive evaluations running into 2000, the U.S. Army again rejected the procurement of the M8 later that year.

### M113

Following an uninterrupted run of 32 years, FMC Corporation shut down the M113 line in 1992. However, a late 1993 order from Kuwait prompted the reopening of the line. Subsequently, another export order for the M113 was placed by Thailand, reactivating the line until 1998. Development of the vehicle also continues. United Defense is currently overhauling existing M113 vehicles, as well as converting and modifying existing chassis to A2 and A3 configurations, including the Fire Support Combat Vehicle and the Fire Support Team Vehicle, along with the Improved TOW Vehicle, on an as-requested basis.

## Missile Programs

---

### Vertical Launch Systems

The Mk 41 VLS is being installed on newer AEGIS cruisers and destroyers, and selected Spruance class ships. The Mk 41 is modular in design, and its configuration depends on the number and placement of eight-cell launchers. The system can handle a mix of Standard, Tomahawk, and ASROC missiles. As such, it can address air, surface, and subsurface threats. FMC is working to integrate Standard Missile Block IV and Sea Lance missiles within the VLS. The company is also part of an international team integrating the vertically launched NATO Sea Sparrow into the VLS capabilities.

### Mk 10s, -13s, -22s, and -26s VLS Canisters

FMC Tartar and Terrier systems are the most widely used shipboard guided missile launchers in the Navy fleet and throughout the Western world. The company is addressing advanced launcher capabilities such as Rolling Airframe Missiles and multipack configurations. These upgrades eliminate obsolescence and provide for continuing orders and revenues.

## Ordnance Programs

---

### Advanced Gun System

In December 2000, machinists at United Defense Louisville cut the first metal to be fitted on the new DD(X) destroyer. The cuts were made on the first 155mm barrel for the Advanced Gun System (AGS). Each DD(X) will carry two guns.

In October 2002, United Defense Industries received a contract and initial funding for the design, production, and testing of AGS Engineering Development Models (EDMs) for the U.S. Navy's new DD(X) destroyer. Once definitized, United Defense anticipates the EDM phase of the AGS program would be valued at approximately \$300 million.

### XM 2001 Crusader

This is a tracked 155mm self-propelled artillery system.

Crusader Cancelled. In August 2002, United Defense Industries received formal notice from the U.S. Army that its Crusader contract had been terminated for the convenience of the government. The termination notice constitutes the Army's implementation of the decision of the Secretary of Defense, announced on May 8, 2002, that the program would be canceled. The termination was effective immediately, and essentially ended all further work on the Crusader program by United Defense and its subcontractors.

### Mk 45 Gun System

United Defense has provided gun systems for most of the Western world's navies. The company started producing ordnance equipment in 1938. The Mk 45 is a remotely controlled system having two major elements, the above-deck gun and turret, and the below-deck ammunition handling equipment. It is a 5-inch, 54 caliber automatic gun, with the Mod 0 system entering service in 1973 and the Mod 1 currently in production.

### M109 155mm Self-Propelled Howitzer

This standard unit is the mainstay of both friendly and unfriendly armed forces. Although the serial production of the M109 is currently dormant, it remains available for orders; the system is still in widespread service throughout the world. All existing inventories of U.S. M109 systems have been upgraded to the longer-barreled M109A1/2/3 standard, with most being the A2 or A3. Development of the basic design continues in the United States; the latest standard is type classified the M109A6 and called the Paladin. A program to modernize 950 existing U.S. Army M109 systems to the A6 standard was completed in 1999.

## Unmanned Vehicle Programs

---

## United Defense Industries Inc

**Combat Engineering/Support Vehicles**

The United States is researching the possible development of unmanned engineering and support vehicles. These unmanned ground vehicles would perform certain

hazardous and repetitive missions that human soldiers are currently required to do. United Defense has been active in several developmental programs in this regard.

**U.S. Contract Awards**

Below is a listing of major contracts awarded to United Defense and BAE Systems Land and Armaments by the United States government as of press date.

<b>Date</b>	<b>Award (USD millions)</b>	<b>Contract #</b>	<b>Description</b>
<b>2004</b>			
1/8/04	20.8	N61339-03-C-0004	22 each Opposing-Forces Surrogate Training Systems-Main Battle Tank vehicles for the Army.
1/22/04	8.6	DAAE07-01-C-M016	60 Bradley upgraded (recap) conduct of fire trainer units.
1/29/04	7.0	DAAE07-01-C-M011	Support of in-production and out-of-production Bradley Fighting Vehicle Systems, Multiple Launch Rocket Systems).
2/23/04	13.2	DAAE07-01-C-N030	38 M88A2 engines with container for the heavy equipment recovery combat utility lift and evacuation system.
3/8/04	17.5	N00024-04-C-5454	Support equipment for the Mk 41 Vertical Launching System.
3/18/04	7.2	DAAE07-01-C-N030	Three heavy equipment recovery combat utility lift evacuation systems.
4/2/04	10.3	DAAE07-03-C-M019	Upgrade 92 M577A2 vehicles to M1068A3 vehicle configuration.
4/14/04	42.9	N00024-99-C-5206	Three 5-in /62 Mk 45 Mod 4 gun mounts.
4/26/04	7.1	DAAE07-01-C-M011	Technical support and logistics services in support of the Bradley Fighting Vehicle System.
5/4/04	11.7	N00024-04-C-4156	Virginia class fixed propulsor assembly and propulsor rotor tailcone.
5/17/04	18.0	DAAE07-01-C-M016	13 M7 Bradley Fire Support Team Vehicles and 40 Bradley Fire Support Team Kits.
6/2/04	8.6	DAAE07-01-G-M002	365 Operation Desert Storm MTS appliqué spares kits.
6/7/04	395.5	N63394-04-D-4000	Procurement and support of Mk 38 Mod 2 machine gun system.
6/14/04	37.6	W56HZV-04-C-0105	21 heavy equipment recovery combat utility lift and evacuation system vehicle kits.
6/21/04	5.0	DAAE07-00-C-L054	Fabrication of structures for the Integrated Survivability Advanced Technology Demonstrator.
7/20/04	35.7	DAAE07-01-C-M016	Improved Bradley acquisition subsystems, TOW missile launchers, and Bradley eye safe laser range finders.
7/20/04	7.2	DAAE07-01-G-M002	A3 and Operation Iraqi Freedom authorized stock list spares.
7/26/04	7.1	W56HZV-04-C-0105	Seven heavy equipment recovery combat utility lift and evacuation system vehicles.
8/9/04	42.8	DAAE07-01-C-M016	Repair of 131 Bradley Operation Desert Storm vehicles.
10/5/04	48.7	W911KF-04-D-0001	Overhaul of the M113A3 vehicles.
11/30/04	17.1	N00024-04-C-5464	Mk 41 Vertical Launching System canisters.
12/9/04	38.2	N61339-03-C-0004	43 each Opposing-Forces Surrogate Training Systems-Main Battle Tank vehicles for the U.S. Army.
12/23/04	34.3	DAAE07-01-C-M011	Support and logistics services in support of the Bradley Fighting Vehicle and Multiple Launch Rocket Systems.
<b>2005</b>			
1/03/05	8.8	W56HZV-04-C-0725	Manufacturing technical assistance in support of

## United Defense Industries Inc

<u>Date</u>	<u>Award (USD millions)</u>	<u>Contract #</u>	<u>Description</u>
1/13/05	5.7	W15QKN-05-C-1185	M88A2. 155 BONUS projectiles for the Sensor Fuzed Munitions program.
1/14/05	10.3	N00024-Q4-G-4146	Production and delivery of 8 (each) Mk 32 Mod 15 Surface vessel torpedo system shipsets for DDGS 105 through 112.
1/14/05	15.0	DAAE07-01-G-M002	M113A3, M1, and Bradley survivability enhancement armor.
1/25/05	5.9	N61339-03-C-0004	Seven each opposing-forces surrogate training systems-main battle tank vehicles for the U.S. Army.
1/28/05	18.2	W56HZV-04-C-0356	Spare parts and technical support for the M113A2 family of vehicles overhaul program.
2/4/05	11.3	DAAE07-01-G-M002	123 A2 blue force tracking kits & associated spares.
2/4/05	7.1	DAAE07-01-C-M016	Conversion of 69 M6 Linebacker vehicles & 19 M2A2 MAN PADS.
2/9/05	27.0	DAAE07-01-C-M016	Conversion of 131 M3A2 operation Iraqi Freedom vehicles to 120 A3 vehicles.
3/15/05	5.0	DAAE07-01-C-M011	Systems technical support and logistics services.
3/18/05	30.8	W56HZV-05-C-0239	R&D of an armed robotic vehicle platform.
3/28/05	11.6	DAAE07-01-C-M011	Systems technical support and logistics services.
4/1/05	12.7	DAAE07-01-G-M002	M113A3, M1, and Bradley survivability enhancement armor.
4/4/05	10.0	N00024-04-C-5464	Procurement of FY 05 Mk 14 Mod 2 canisters.
4/6/05	71.5	W56HZV-05-G-0005	Remanufacture of M2A3 vehicles.
4/12/05	10.8	DAAE07-01-C-M016	Maintenance of the M2A2 Operation Desert Storm vehicles.
5/4/05	8.0	DAAE07-01-C-M011	Systems technical support & logistics services.
5/16/05	16.6	DAAE07-01-C-M016	Reset of M2A3 Bradley vehicles.
5/23/05	44.1	N00024-99-C-5206	Three 5-in/62 Mk 45 Mod 4 gun mounts.
5/27/05	376.0	N00024-05-C-5117	Design, develop, and test of the Advanced Gun System.
5/31/05	5.3	DAAE07-01-C-M011	Systems technical support and logistics services.
6/10/05	6.4	DAAE07-01-C-M011	Systems technical support and logistics services.
6/14/05	26.8	DAAE07-01-C-M011	Systems technical support and logistics services.
6/14/05	14.5	DAAE07-01-C-M011	Systems technical support and logistics services.
6/17/05	8.0	DAAE07-01-C-M011	Systems technical support and logistics services.
6/17/05	7.6	DAAE07-01-C-M011	Systems technical support and logistics services.
6/20/05	11.5	DAAE07-01-C-M011	Systems technical support and logistics services.
6/23/05	16.1	DAAE07-01-C-M011	Systems technical support and logistics services.
6/24/05	896.4	W56HZV-05-G-0005	Remanufacture of Bradley A3 vehicles.
6/24/05	78.4	W56HZV-05-G-0005	Remanufacture of Operation Desert Storm vehicles and conversion kits.
6/24/05	31.4	W56HZV-05-G-0005	Remanufacture M7 Bradley fire support vehicles.
6/24/05	30.6	DAAE07-01-C-M016	Commander's Independent Viewers.
6/24/05	18.6	W56HZV-05-G-0005	A3 associated stockage list spares.
6/27/05	143.1	DAAE07-01-C-N030	Production and system technical support for the M88A2 HERCULES recovery vehicles.
7/5/05	90.0	W56HZV-05-C-0463	Overhaul of M1068A2, M577A2, and M1064A2 vehicles and upgrade of the same to the A3 configuration.
7/5/05	23.3	DAAE07-01-C-M016	Reset of M2A2 Operation Desert Storm vehicles.
7/5/05	11.0	DAAE07-01-C-M011	Systems technical support and logistics services.
7/7/05	8.8	W56HZV-04-C-0105	Seven HERCULES vehicles for Australia.
7/15/05	70.1	DAAE07-01-C-M016	Reset of Bradley M2A3 and Operation Desert Storm vehicles.
7/18/05	17.0	N00024-04-C-5454	FY05 Mk 13 canisters.
9/2/05	7.7	DAAE07-01-C-M011	Systems technical support and logistics services.
9/21/05	11.0	DAAE07-01-C-M016	Reset of 15 M7 Bradley fire support vehicles.
11/21/05	57.9	DAAE20-02-C-0134	Refurbishment of M109A5 self-propelled howitzers.

United Defense Industries Inc

<u>Date</u>	<u>Award (USD millions)</u>	<u>Contract #</u>	<u>Description</u>
12/15/05	20.0	W56HZV-05-G-0005	FY06 reset of Bradley vehicles.
12/20/05	11.0	DAAE07-01-C-M011	Systems technical support and logistics services.
12/30/05	9.8	N00024-04-C-5464	FY06 Mk 14 Mod 2 canisters.

\* \* \*