ARCHIVED REPORT

For data and forecasts on current programs please visit

www.forecastinternational.com or call +1 203.426.0800

AWA Defence Industries Archived 5/1998

Outlook

- As one of Australia's largest aerospace and defense companies, AWA receives most of its work from the Australian armed forces
- In April 1996, BAe Australia completed the acquisition of AWA Defence Industries for A\$50 million
- The acquisition will roughly double the size of BAe Australia
- The merger should further the market reach of the Nulka as well as strengthen the company's prospects in the RAAF's advanced earlywarning and control aircraft competition



Headquarters

AWA Defence Industries Pty Ltd PO Box 161, Elizabeth, SA 5112 Building 233, Contractors Area Salisbury, SA 5108, Australia Telephone: (61 8) 256 0308

Established in 1913 by Sir Ernest Fisk, AWA became almost immediately famous as the pioneer of the first direct radio transmission between Australia and Europe. The firm quickly positioned itself to become an integral player in the development of Australia's domestic broadcasting, air navigation, and shipping communications infrastructure. The Australian corporation AWA Limited is composed of approximately 45 to 50 subsidiary companies that are mostly located in Australia. AWA Limited engages in acquisitions and divestitures as part of its business strategy; therefore, the precise number of subsidiary holdings varies from time to time. A significant company reassessment was undertaken in late 1989 and

early 1990 to reshape the company and focus on fewer enterprises. As a result, several units have been sold, some have been closed, and others have been combined into larger and stronger operation divisions.

AWA Defence Industries Pty Ltd is an example of the latter strategy. This unit was formed by combining AWA Defence Industries' divisions with AWA Limited's C3 Pty Ltd, AWA Defence and Aerospace, and AWA Electronic Services. AWA Limited's Defence & Aerospace sector also includes AWASCo Pty Ltd.

AWA Limited is currently organized into various sectors which include Defence & Aerospace, Communications, Information Systems, Electronic Components, Media, and Distribution.

In 1996, AWA Defence was acquired by BAe Australia for \$A50 million

Structure And Personnel

As of 1/93.

AWA LIMITED

J.A. Iliffe
Company Director and Chairman

D.S. Greatorex Company Director and Deputy Chairman J.P. McDougall Company Director and CEO



R.M. Craig
Company Director
L.W. Davies
Company Director
J.A. Landels
Company Director
D.T. Parkin
Company Director

AWA DEFENCE INDUSTRIES PTY LTD (Australia)

As of 1/96.
P.A. Smith
Managing Director
M.F. Hender
General Manager, Sales and Marketing

Product Area

The company's products, projects, and capabilities catalog identifies about 70 different items ranging from electrical, mechanical, and optical parts to assemblies, products, and systems. A selected listing of the company's products and capabilities would include acoustic signal processing, software. air traffic control counter-terrorist communications systems, devices, defense and depot services, EW systems, electro-optical components and assemblies, facilities management, FLIR systems, laser components and systems, microwave radio networks, muzzle projectile velocity measuring devices, navigational equipment and aids, optical component design and manufacturing, rangefinders, sonobuoys, support services, system analysis, test equipment, vehicle radar and camera speed systems, wiring harnesses, and radio broadcasting operations. AWA manages its businesses and product lines in the following organizational manner:

AWA Limited

- 1. Defense & Aerospace
- 1.1 AWA Defence Industries Pty Ltd
- 1.1.1 Aerospace Systems
- 1.1.2 Electronic Services
- 1.1.3 Manufacturing
- 1.1.4 Underwater Surveillance
- 1.1.5 C3I
- 1.1.6 Electronic Warfare
- 1.1.7 Surveillance, Target Acquisition & Night Observation
- 1.2 AWASCo Pty Ltd (an AWA and Serco Ltd joint venture)
- 2. Electronic Components
- 2.1 AWA MicroElectronics Pty Ltd
- 3. Communications
- 3.1 AWA Communications
- 4. Information Systems
- 4.1 AWA Traffic & Information Systems
- 4.2 AWA Wagering Systems
- 4.3 AWA Computer Support Services

- 4.4 Club Gaming Systems Pty Ltd
- 4.5 Club Gaming Systems (Holdings) Pty Ltd
- 4.6 AWA Gaming Systems Pty Ltd
- 5. Media
- 5.1 AWA Media Pty Ltd
- 5.2 Radio 2CH Pty Ltd
- 6. Distribution
- 6.1 AWA Distribution

Defense & Aerospace. AWA Defence Industries Pty Ltd is one of the largest and most significant defense systems engineering companies in Australia. The "old" AWA Defence Industries operation was composed of Thorn EMI Electronics Australia and Fairey Australasia. The "new" AWA Defence Industries Pty Ltd was formed in 1990 by joining the AWA Defense Industries divisions with C3 Pty Ltd, AWA Defence and Aerospace, and AWA Electronic Services. AWA Limited's Defence & Aerospace sector also includes AWASCo Pty Ltd.

The sector's products, systems, and services consist of the following: Manufacturing and testing of precision mechanical components and assemblies. Manufacturing, assembly, and testing of electronic components and assemblies. Computer-based systems engineering for software, hardware, mechanical, electronic, and optical systems. Design, fabrication, assembly, and qualification of optical and electro-optical equipment for military applications. Lasers, airborne remote sensing spectroradiometers, scanners, night vision equipment, goggles, tank sights, and advanced instruments. Electronic warfare systems and products, such as surveillance and detection systems that operate across the spectrum from IR to microwave frequencies. Signal processing technology primarily for acoustic applications. Applied electronics, including Doppler radars, communications terminals, air traffic control, monitoring systems, and command and control networks. In a partnership with Plessey (GEC), the company builds sonobuoys. Integrated logistic support for sites and field locations including training, publications, field and depot level

services, and management services. Facilities support services for range management and remote site operations

Communications. AWA Limited's Communications and Information Systems sectors specialize in advanced telecommunications systems for domestic use in Australia as well as for international markets. The sector's main business is focused on digital microwave radio systems capable of voice, data, and specialized communications.

Information Systems. AWA's work in microelectronics began in 1965 with a semiconductor laboratory. Work was accomplished in monolithic bipolar MSI, PMOS, and

CMOS LSI integrated circuits. In 1988, the company opened an ASCI plant. Currently, AWA offers a full line of microelectronic capabilities, including design, testing, qualification, and manufacturing for ASIC needs.

Media. The Media sector includes a radio station engaged in broadcasting music to a 35-and-older listening audience.

Distribution. AWA's Distribution business is engaged in selling car radios, alarm products, audio-visual products, professional and industrial instruments, control equipment, and computer peripherals.

Facilities

NSW Division, Level 6, 15 Talavera Road, North Ryde, N.S.W. 2113, Australia.

Airways Group, Level 5, 15 Talavera Road, North Ryde, N.S.W. 2113, Australia.

AWA Defence Industries Pty Ltd, Building 233, Contractors Area, Defence Sciences and Technology Organization, Salisbury, S.A. 5108, Australia.

<u>Domestic Subsidiaries</u>. AWA subsidiary companies as of 1993 are as follows (wholly owned unless otherwise indicated by a percentage share of ownership):

AWA Defence Industries Pty Ltd (70 percent)

AWA Media Pty Ltd

AWA Nominees Pty Ltd

AWA Rediffusion Pty Ltd

AWA Research and Development Pty Ltd

AWA Research Marketing Pty Ltd

AWA Superannuation Pty Ltd

AWA Universal Totalisators Pty Ltd

AWA Universal Totalisators (UK) Ltd

Club Gaming Systems Pty Ltd

Cognati Pty Ltd

Deodand Pty Ltd

Expanse Electronics Ltd

Jocalia Pty Ltd

Momerath Pty Ltd

Mornington Peninsula Broadcasters Ltd

Radio 2CH Pty Ltd (74 percent)

AWA MicroElectronics Pty Ltd (47.1 percent)

Associated companies (with AWA ownership share) include the following:

Australian Warships Systems Pty Ltd (26 percent)

AWA Data Tote Ltd (50 percent)

AWASCo Pty Ltd & the AWASCo Trust (35 percent)

Racom Systems Ltd (33 percent)

Corporate Overview

While AWA Ltd has an almost century-long history in the Australian electronics and electronics-defense industries, its subsidiary, AWA Defense Industries Pty Ltd, is still somewhat of an infant, having been established after a major reorganization and acquisition process which was undertaken by AWA Ltd in 1990. As a result, AWA Defense Industries Pty Ltd has been rather devoid of a detailed corporate structure. However, the company has addressed this shortcoming with the establishment of seven business units to cover product development, aerospace, manufacturing, business development,

servicing and support, project engineering, and systems integration.

New Products and Services

JINDALEE. This is a strategic over-the-horizon backscatter (OTH-B) radar designed to provide the Australian mainland with early warning of hostile air movements, particularly from the north, and to provide control of air defenses in that region. The Jindalee Operational Radar Network is an early warning system against air and seaborne threats to Australia from the north and northwest. The system is intended to provide tracking



coverage of both ships and aircraft at ranges of up to 2000 km. Jindalee is regarded as a supplementary system to an airborne early warning aircraft force, enabling the latter to be deployed more effectively. The Jindalee system will also provide protection for the Pine Gap "space research" facility (in fact the southern hemisphere coordinating ground station for US military satellites), the USAF satellite ground station at Narrungar and the US Navy communications base at North West Cape. AWA has been built and successfully tested one prototype radar upgraded to operational standards. A plan to install two final Jindalees, originally scheduled for construction in the late 1990s, has been abandoned.

NULKA. The Offboard Active Decoy (NULKA) is a joint cooperative program between the United States and Australia. The two countries have developed an active offboard decoy which utilizes a broadband radio frequency repeater mounted atop a hovering rocket. The Decoy was designed to counter a wide variety of present and future radar guided Anti-Ship Missile threats by radiating a signal that simulates a large radar cross section target that represents a ship while flying a ship-like trajectory. Initial unit production is beginning. AWA Defense Industries produces the decoy's rocket system.

Plant Expansion/Organizational Update

No recent activity in this section has been announced.

Mergers/Acquisitions/Divestitures

BAe Australia Acquires AWA Defence Industries. In April 1996, BAe Australia completed the acquisition of AWA Defence Industries for A\$50 million. AWA employs about 700 people and had 1995 sales estimated at A\$140 million. The acquisition will roughly double the size of BAe Australia. The merger should further the market reach of the Nulka as well as strengthen the company's prospects in the RAAF's A\$1 billion requirement for advanced early-warning and control aircraft.

Teaming/Competition/Joint Ventures

AWA MicroElectronics was formed in 1988 as a joint venture between AWA Limited (64 percent), British Aerospace (25 percent), and the New South Wales government (11 percent). It represents a \$35 million investment by AWA providing Australia with access to ASIC technology. AWA currently owns only 46 percent of AWA MicroElectronics.

Sonobuoys Australia is a partnership between two Australian companies, AWA and Plessey Pacific. Together, they designed and built the SSQ-801 sonobuoy.

Financial Results/Corporate Statistics

Since AWA has not responded to repeated requests for financial statements, data for CFY93 and CFY94 are currently unavailable. However, published reports have indicated that the company posted an estimated A\$140 million in sales for 1994. Available year statistics are provided below. US dollar figure translated as of June 30, 1992, at the rate of A\$1=US\$0.756. The company's fiscal year is July 1 to June 30.

Y/E June 30	1988	1989	1990	1991	1992	1992
(\$A millions)						US\$
Net Sales	645.3	574.0	490.7	409.7	246.9	185.2
Net Income	34.5	-0.3	-24.7	5.8	7.8	5.9

Strategic Outlook

As one of Australia's largest aerospace and defense companies, AWA Ltd receives substantial work in association with the Australian armed forces. However, with a zero-percent growth in Australia's defense budgets for the late 1990s, the country has been reshaping some of its military priorities. Since it has completed or already earmarked funding for three of its major defense projects – involving fighter aircraft, submarines and frigates – Australia will be focusing primarily on smaller projects and joint ventures. Overall, Australia is unlikely to see any new major defense projects – which translates into no growth for AWA.

This no-growth trend is painfully apparent in AWA's sales, which have continued to drop year after year. Faced with a continued slide in its markets, AWA took the route of many other defense manufacturers around the world and consolidated. In this case the company was purchased by British Aerospace, which has a substantial operation in Australia. Now with the two operations combined, the new BAe AWA should have a better than average chance of pursuing market opportunities not only in Australia, but in the Pacific Rim as well.

While Australia has long had strong diplomatic ties with the US and the UK, the country is moving to become more closely tied with its regional neighbors. Mindful of the growing lucrative market in the region, Australia is seeking to strengthen its military relationship with countries such as Malaysia, South Korea, Singapore, Thailand and Indonesia. All of these countries have fast-growing economies and are proposing to modernize their armed forces through the late 1990s. Now, as a combined

entity, BAe AWA is expected to utilize the strength of their merged operations to gain a sizable share of these emerging markets.

With AWA now part of BAe, this report will no longer be updated. Future coverage of developments related to AWA will be covered in the British Aerospace report located in this binder.

Prime Award Summary

Unavailable.

Program Activity

AWA is involved in the following types of programs:

- Defense Electronics
- ASW
- Avionics
- C3I Systems
- Electronic Warfare
- Radar
- Sensors

Electronics

TACAN 9996-G Series

TACAN navigational equipment is installed worldwide as aircraft DME navigational aids. AWA Defence Industries manufactures TACAN Beacon systems under license to ITT Avionics Inc. AWA equipment is solid state, computer-controlled, and derives from the VORTAC system selected by the US Federal Aviation Administration.

LDB-101 DME Beacon System

This system allows aircraft to communicate vital in-flight information to ground bases. The system comprises a ground beacon and an airborne transmitter. Up to 100 aircraft may use the system simultaneously. It has an operational range of approximately 370 kilometers (200 nautical miles) which depends on aircraft height, ground obstructions and other factors.

(C3I)

Digital Microwave Radio Systems

The communications sector of AWA specializes in advanced telecommunications systems for Australia and international markets. Its systems are primarily Digital Microwave Radio Systems that can be used for special applications, such as offshore platforms or Australian outback sites. The company's equipment can also be used to extend public trunk networks. AWA systems are

operational in Australia, New Zealand, the Philippines, India, South Africa, and the Middle East. An AWA Communications worldwide service capability is in place. In 1990, AWA received a A\$30 million Australian award for supplying and installing Earth terminal antennas for the Australian Defence Communications Satellite System.

AWANET

The company's Air Traffic Control systems provide displays, communications, recording, supervisory stations, radio nets, computers, and data distribution features. AWANET is a fully integrated airport ATC system. The number of operational sites and backlog orders for AWANET are not known at this time.

MILNET

MILNET is a high-capacity image, voice, data, and sensor network for local area communications needs. It is designed for secure and survivable defense applications. The system can provide hookups with external communications networks, various operator positions, and a mainframe computer, and to an internal communication LAN such as token rings or ethernets.

Surveillance And Detection

PRISM

This is a Passive Radar Identification System (PRISM) electronic support measures (ESM) receiver. AWA developed PRISM as a private venture. In late 1992, the company was awarded a A\$3.0 million (US\$2.0 million) contract to supply the Australian Navy with PRISM receivers. The PRISM unit is a low-cost wideband microwave receiver that targets pulsed radar emitters. It intercepts, identifies, and displays the parameters of target radars operated by aircraft and ships. Delivery of the equipment to the Australian Navy took place during 1993-1994.

SSQ-801 Sonobuoy (BARRA)



The Barra SSQ-801 sonobuoy is produced by the AWA-Plessey partnership. The SSQ-801s are air-dropped sonobuoys (fixed- or rotary-wing aircraft) which provide bearing and location information in a passive mode. Received data are processed by the AQS-901 onboard P-3C Orion and Nimrod aircraft. When used with Seahawk helicopters, data are processed by the UYS-503 and AQA-801 onboard systems. Barras are widely used by the RAAF and RAF.

Fast Time Acoustic Analysis System (FTAAS)

FTAAS is a modern Post Mission Acoustic Analysis System that entered Australian service in 1990. New, quieter submarines require larger buoy fields for location and detection. This in turn places a larger demand on processing, data analysis, and the numbers of channels of information that must be evaluated. FTAAS meets these requirements. It works with Jezebel, DIFAR, Barra and Bathythermal passive buoys and DICASS and Ranger active buoys, and has growth potential to handle HARP and VLA when these systems become available. The FTAAS is portable and deployable and comes in a sheltered configuration. It can accommodate two to four operators.

(Electronic Warfare)

Remote Independently Operable Transceiver (RIOT)

RIOT is a multimode ECM/ESM device that targets the enemy's combat communication net. Hand (field) deployed by ground forces, it functions as a jammer, ESM intercept device, or detection transmitter. Selection is made at deployment. It can be attended or left unattended by the user organization.

MODIR

MODIR is an infrared signal generator aircraft attachment that is designed to combat terrorist-launched, heat-seeking, shoulder-fired (SA.7) missiles. It generates a modulated source of more intensive heat, compared to a jet engine exhaust, which is designed to confuse a missile. The system was designed to meet an RAAF requirement and is fully environmentally qualified and certified for flight operations. The system comprises power conditioning and control units, a cockpit control panel, and the jammer unit. Normally two are required on each aircraft, one on each side.

(Other)

UPQ-501 Muzzle Velocity System Mk 3

The UPQ-501 is a small muzzle velocity system designed to accurately measure rounds of all types of artillery shells and mortars. It is designed to be permanently installed on a host gun. The system is composed of a radar unit, a processor unit, and a data display unit. It is currently in production, but new development efforts, production rates and/or orders, and end user details are not known.

EXDET Explosive Detonator

Exdet is a small handheld detonator holding program data for up to 100 days, accurate to one minute. It can replace conventional chemical, electrical, and mechanical imitators, and offers a higher level of safety and flexibility.

AWA is also involved in ship or vessel outfitting and service for commercial and military requirements. It designs bridge command and control systems integrating navigational, communications, and operational systems. Some of the equipment is made by AWA; other systems and devices are procured by OEM companies and integrated into ship systems. AWA provides maintenance services to the shipping industry at several port locations in Australia.

* * *