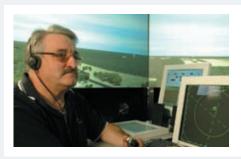




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Adacel is a leader in air traffic control simulation and training.

## **Adacel Technologies Limited**

ABN 15 079 672 281

240 Bay Street Brighton Victoria Australia 3186 Telephone +61 3 8530 7777 Facsimile +61 3 9596 2960 www.adacel.com

## **Board of Directors**

Julian Beale (Chairman)
Silvio Salom (Managing Director)
Alex Waislitz
Kevin Courtney
David Smith
Peter Landos (Alternate to Mr Waislitz)

## **Company Secretary**

**Errol Turner** 

### Bank

Royal Bank of Canada

1 Place Ville Marie 7th Floor East Wing Montreal Quebec H3C 3A9 Canada

## Solicitors

Deacons

RACV Tower 485 Bourke Street Melbourne Victoria 3000

### **Auditor**

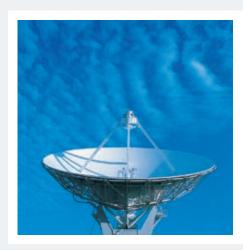
Price water house Coopers

Freshwater Place Level 19 2 Southbank Boulevard Southbank Victoria 3006

## **Share Registry**

Computershare Investor Services

Yarra Falls 452 Johnston Street Abbotsford Victoria 3067 web.queries@computershare.com.au



Adacel is a leader in satellite-based Oceanic air traffic management systems.

## Adacel: Aviation and defence simulation and control

Adacel is a world leader in air traffic control simulation and training systems and satellite-based air traffic management software for Oceanic airspace. From this base, Adacel is taking its industry-leading products and technology into associated markets by leveraging its excellent reputation for innovation and quality solutions and its extensive customer base.

## Key Points of 2005

# Year of consolidation following group restructuring

- Operating losses reduced as group consolidates operations after the restructuring initiatives of 2004
- Continued industry leadership and entry to new market segments put company in good position to address expected market growth over short to-medium term
- Additional working capital raised through Rights Issue
- Operating within existing cash and available bank facilities

## Continued leadership in International aviation and defence markets

 ATC simulation and air traffic management contracts from major organisations such as US Air Force, Lockheed Martin and air traffic authorities in US, Europe and Middle East

## Milestones achieved in key programs

- Further MaxSim simulator deliveries for US Air Force Tower Simulation System program
- US Oceanic Air Traffic System using Adacel software becomes operational at New York Oceanic control centre
- Adacel working with Lockheed Martin on the US En Route Automation Modernization program
- Joint Strike Fighter program: Further development of voice automated cockpit control system

## Leveraging Adacel technology into new market segments

- Airbus using Adacel simulation technology in research and development of cockpit and aircraft systems for Airbus aircraft, including the new A380
- Advanced security control room simulator using Adacel's ATC simulation technology launched into US Homeland Security market
- Entry into US airport driver training market

## The Year in Review







Silvio Salom Managing Director

#### **Overview**

The 2005 financial year was a period of consolidation for the group after the restructuring initiatives of 2004.

The company made progress organisationally, continuing to focus the group on the company's North American based global aviation and defence simulation and control operations.

We continued to win new and repeat business throughout the world as a result of our industry leadership position and there were further advances in our strategy of taking Adacel's existing technology and products into associated markets.

## Financial performance

Group revenues of \$38,426,000 in the 2005 financial year were 33 per cent lower than in the prior year as a result of the exit of businesses in the group restructuring, delays to expected air traffic control simulation contract awards and completion of the major component of a large program in the 2004 year.

Operating losses were reduced, but the performance in 2005 was impacted by the delayed contracts as well as one-off adjustments reflecting cost over-runs on historical projects, provisions for further restructuring in North America and a provision against future contract costs.

With these impacts, the group pre-tax loss for 2005 financial year was \$8,394,000 compared with \$22,878,000 in the previous year. After a tax expense of \$756,000, the group after-tax loss was \$9,150,000 compared with \$23,451,000 previously.

On a cash basis, group operations used \$3,184,000 in cash during the 2005 year while the Rights Issue raised \$6,097,000 and together with other items, total net cash inflow for the year was \$2,631,000. The company is continuing to operate within existing cash, operational cash flows and available bank facilities. Reflecting the increased North American operational focus, the company transferred its main banking facility to the Royal Bank of Canada.

### Operational initiatives

While the group restructuring was largely completed in the 2004 financial year — with staff numbers reduced from around 310 to around 200 at 30 June 2004 — the workforce has been further reduced to around 160 at 30 June 2005.

In addition, there has been further progress in developing the North American base for the company's international operations.

We reviewed and strengthened the North American management team with the appointment in July 2004 of Fred Sheldon as CEO North America and appointment of Seth Brown as CFO North America in January 2005. We have also recently appointed Steve Piller as Senior Vice-President, Business Development North America.

These three executives bring a wealth of experience to Adacel from the North American aviation and defence sector. Fred has held senior positions with DRS Technologies, Rockwell Collins and Boeing, while Seth has worked at Smith's Aerospace, Matra Defense Company, Orbital Sciences Corporation and

the Fairchild Space and Defense Corporation. Steve has held senior positions at Rockwell Collins Commercial Systems as well as General Electric Aircraft Engine Group and Avco Everett Research Laboratory.

During the year, the North American business units were restructured to improve operational focus and further action was taken towards the end of the financial year to reduce organisational costs. This is expected to generate savings in the 2006 financial year and beyond. We also reorganised our engineering and operations services groups in North America to enhance program performance.

In Australia, we are continuing to focus on immediate and medium term opportunities in aviation and defence programs.

With these initiatives we believe we have the right structure, organisational focus and staffing levels and will achieve improved gross margins in 2006.

### Adacel and its markets

Adacel continues to be a leader in its markets and to have a strong reputation within the North American and international aviation and defence communities. This was reflected in the new and repeat customers that awarded the company contracts during the year.

It was also reflected in the growing level of annuity-type support and services business, which in 2005 represented nearly 50 per cent of total North American revenues. Adacel selected to supply MaxSim ATC simulators to Italy's air traffic authority, Ente Nazionale de Assistenza Al Volo. (Photo: ENAV)





A MaxSim system in operation.

#### **ATC Simulation**

Adacel continued to consolidate its industry leadership position in Air Traffic Control simulation during the year, although revenues were lower due to the delayed contracts and the completion in the prior year of the main part of the major US Air Force contract.

We continued to win new and repeat ATC simulation business in North America and internationally during the year. In addition to our continuing program with the US Air Force, we also worked during the year with air traffic authorities in Italy, Austria, Hungary, the United Arab Emirates and Saudi Arabia, as well as a number of US aviation colleges.

Since the start of the current financial year we have announced a further contract with ENAV valued with options at up to \$15 million, as well as further tower simulation orders for the US Federal Aviation Administration. In addition, we are in negotiations for further contracts with US government defence organisations.

We are continuing to build recurring revenue streams from our extensive customer base through upgrades, support and maintenance. For example while the main simulator delivery phase of the US Air Force Tower Simulation program has been completed, we are now providing global support to the program, which is due to continue through to 2011.

The company has also developed a service to provide customers with on-site support personnel for their ATC simulation systems. This has the potential to grow to become a useful additional annuity income stream.

Based on our understanding of our customers' procurement plans and our position in the market, we expect increased levels of market activity in simulation systems in the current financial year, as well as some increases in levels of support and maintenance income.

## Air Traffic Management

Adacel's Air Traffic Management operations continue to provide a solid base of annuity revenues in excess of \$15 million per year and operated profitably during 2005.

During the year, we were awarded a further extension to our long-standing contract with Lockheed Martin as well as a contract from the Portuguese air traffic authority to upgrade Portugal's Oceanic system.

We formalised an agreement to work with Lockheed Martin on the FAA's En Route Air Modernization program in addition to our work with Lockheed Martin on the FAA's Oceanic modernization program.

Based on our extensive experience in Oceanic Air Traffic Systems, Adacel has established a strategic position in datalink-based air traffic management systems that provides an opportunity to participate in the uptake of this technology for non-Oceanic regions.

### **Advanced Programs**

During 2005, we achieved further success in our strategy of taking our existing products and technology into closely associated segments.

We continued work on development of a speech-enabled cockpit control system for the

multinational Joint Strike Fighter program. In addition, we were also recently selected as part of a team to supply training courseware for the JSF.

A contract awarded during the year by Airbus advanced our strategy of taking our MaxSim technology into the aircraft flight simulation market. Under the contract, Adacel MaxSim technology will be used to generate air traffic environments for research and development of cockpit and aircraft systems for Airbus aircraft, including the world's largest aircraft, the new A380.

We also progressed our strategy of taking our simulation technology into the homeland security market. We have developed a Command and Control Security Simulator for training security control room operators for critical national infrastructure such as airports, harbours and nuclear power facilities, as well as for buildings and temporary installations. As our first entry into this market, Adacel was recently awarded a contract to provide advanced security control room simulators to a key US national security research establishment, Sandia National Laboratories, in Albuquerque, New Mexico. With increasingly stringent training requirements for protecting critical infrastructure, Adacel expects training for security control room personnel in both civil and defence establishments to be an emerging segment of the Homeland Security market.

While revenues from these new areas were small in 2005, they represent a successful entry into closely associated market segments that provide the company with further growth opportunities for the future.

## The Year in Review





Air Traffic Control students using Adacel MaxSim Tower simulators.

### Outlook

Looking to the 2006 financial year, we expect that earnings will be assisted by market growth, our leaner structure, our industry leading position and increasing annuity revenues as well as revenues from contracts delayed into this year.

In the medium term, Adacel's markets will be assisted by North American aviation and defence authorities' plans to increase procurement programs for Air Traffic Control simulators.

The large base of Adacel systems in use and our ongoing air traffic management activity not only give the company a strong presence in our markets, but also give us a base for increased recurrent revenue flows from upgrades and ongoing services. In addition, the strategy of taking our products into associated markets provides further opportunity for expansion.

With the group restructuring of 2004, the consolidation of operations in 2005 and Adacel's industry leadership, we expect the company to be in a position to take advantage of the emerging market opportunities in 2006 and beyond.

### Julian Beale

Chairman

### Silvio Salom

Managing Director

### **Group Financial Performance**

Year ended June 30

\$'000	2005	2004
Operating Revenue	37,195	55,576
Other Income	1,231	2,006
Total Revenue	38,426	57,582
EBITDA	(6,493)	(11,217)
Amort & Depreciation	(1,487)	(2,769)
Accelerated depreciation & write offs	-	(8,573)
EBIT	(7,980)	(22,559)
Finance Costs	(414)	(319)
Loss before tax	(8,394)	(22,878)
Tax (expense)/benefit	(756)	(573)
Loss after tax	(9,150)	(23,451)

## **Group Financial Position**

As at June 30

\$'000	2005	2004
Total Current Assets	19,774	31,481
Total Non-Current Assets	4,754	7,553
Total Assets	24,528	39,034
Current Liabilities	17,155	27,569
Non-Current Liabilities	892	1,127
Total Liabilities	18,047	28,696
Net Assets	6,481	10,338

## Corporate Profile

Adacel is a leading developer of advanced simulation and control systems for aviation and defence. The company is the world leader in air traffic control simulation, providing simulators for training air traffic controllers in both civil and defence environments and for research, planning and modelling of air traffic procedures. Adacel is also a world leader in satellite-based air traffic management automation software for Oceanic airspace as well as being recognised for its industry leading intelligent speech-driven systems for cockpit and simulator automation.

Through its technological leadership and customer commitment, Adacel has built an international reputation for its products and services and has been awarded some of the industry's most prestigious programs.

Adacel systems are in civil and military operation in more than 30 countries throughout the Americas, Europe, Asia and the Pacific and its customers include civil and military organisations, aeronautical universities and large international aviation and defence suppliers.

Adacel was established in 1987 in Melbourne, Australia, and through an IPO became publicly-listed on the Australian Stock Exchange in 1998 (ASX code: ADA). With international success in aviation simulation and control, Adacel's main operating base is in North America. Adacel has offices in Melbourne, Montreal, Orlando, Washington and the UK.

## **Board and Management Team**



Julian Beale

### Silvio Salom Managing Director



## **Board of Directors**

#### Julian Beale

BE (Syd), MBA (Harvard)

Non-Executive Chairman

Appointed as an independent non-executive Director in June 2003. Mr Beale has extensive international business and capital markets experience and a background in private and public companies at both Board and management level. Mr Beale held senior positions in a range of Australian companies including English Electric and Esso Australia (now Exxon) and was Managing Director of a resources group with interests in petroleum production, pipelines and minerals. He also established a plastics processing company in Melbourne and was a key participant in the successful transition of Moldflow, a developer of software for injection moulding machines, to the United States NASDAQ capital market. Mr Beale was also a member of the Federal Parliament for 11 years from 1984 as the Member for Deakin and later Bruce. During this time he held many Shadow Ministerial portfolios.

### Silvio Salom

BEng (Electrical)

Managing Director

Managing Director of Adacel Technologies Limited since incorporation in October 1997, Managing Director and founder of the predecessor Adacel Pty Ltd from establishment in 1987. Mr Salom has extensive experience in the strategic and operational management of hi-tech companies with particular expertise in information technology related to the manufacturing, environmental, defence, transport, multimedia and telecommunications industry sectors.

#### **Alex Waislitz**

BEc (Mon), LLB (Mon)

Non-Executive Director

Non-executive Director since August 2003. Mr Waislitz is Executive Chairman of the Thorney Investment Group. He has extensive business experience, and is a director of various Pratt Group and Visy Board companies. Mr Waislitz is a Director of McPhersons Limited and Collingwood Football Club.

### **Kevin Courtney**

FCA FAICD

Non-Executive Director

Independent non-executive Director since October 1998. Mr Courtney is a chartered accountant and a former regional managing partner of Ernst & Young. He is a Director of MLC Nominees Pty Ltd, National Markets Group Limited and National Australia Superannuation Pty Ltd, members of the National Australia Bank group of companies. He is Chairman of Adacel's audit committee. Mr Courtney has been a Commissioner of the City of Melbourne and a Director of Connect.com.au, the internet service provider sold to AAPT Telecommunications Ltd. He has been Chair of the audit committees of the Victorian Workcover Authority, the Sunraysia Rural Water Authority and the National Competition Council. Mr Courtney is a Director of the DOXA Social Club assisting underprivileged youth. Mr Courtney was a director of Melbourne IT Limited from October 1999 until his retirement in April 2003.

#### **David Smith**

BE (Electronics)

Non-Executive Director

Non-executive Director since July 2000 and prior to that date an executive Director from incorporation in October 1997. Mr Smith was a senior executive of the company and has extensive experience in software development, project and operations management in the military, aviation and transport domains.

### **Peter Landos**

BEco (ANU)

Alternate to Mr Waislitz

Non-executive Director alternate to Mr Waislitz since August 2003. Mr Landos is an Investment Manager with the Thorney Investment Group. He joined Thorney in 2000 after five years at Macquarie Bank Limited. Mr Landos is an alternate Director to Mr Waislitz on the McPhersons Limited Board. Mr Landos is also a Director of Biological Wool Harvesting Holding Company Limited, an unlisted public company.

Steve Piller Senior VP Business Development North America



Fred Sheldon CEO North America



Bill Lang SR VP ATM and International Operations and GM Canada





Gary Pearson VP Advanced Programs



George Watts

General Manager

Australian Operations



General Manager **UK Operations** 





Seth Brown Chief Financial Officer North America

## Senior Management Team

#### Silvio Salom

BEng (Electrical)

Managing Director

Managing Director of Adacel Technologies Limited since incorporation in October 1997, Managing Director and founder of the predecessor Adacel Pty Ltd from establishment in 1987. Mr Salom has extensive experience in the strategic and operational management of hi-tech companies with particular expertise in information technology related to the manufacturing, environmental, defence, transport, multimedia and telecommunications industry sectors.

#### **Errol Turner**

BBus (Curtin) FAICS

Group Chief Financial Officer & Company Secretary

Appointed December 2000. Mr Turner has an extensive background in financial and commercial management in internationally focused technology companies and large diversified Australian companies including as CFO and Company Secretary of ASX-listed Intellect Holdings Limited. He previously held senior financial management positions, including with Smorgon Consolidated Industries, Bristile Ltd and Foodland Associated Limited.

#### Fred Sheldon

BS (Eng) Cleveland

CEO North America

Appointed July 2004. Mr Sheldon has an extensive background in managing aviation and defense technology businesses and programs and has held senior positions with Electro-Optical Systems Group and Sensors & Targeting Systems, both part of DRS Technologies, Inc., Litton Industries Inc, and Rockwell, Boeing Company and Avco Corporation. In the Air Force his positions included deputy of the Air Force Systems Command Liaison Office in Canada, and member of staff of the Under Secretary of Defense for Research and Engineering.

#### Steve Piller

MEME (Stevens) BEME (Cooper Union) MBA (Wright State) Senior VP Business Development North America

Appointed 6 September 2005. Mr Piller has extensive experience in multinational commercial and government aerospace, airline, electronics, software and turbine engine businesses including Rockwell Collins in the Commercial Systems, Air Transport Systems and Boeing Programs business units. He was previously at Rockwell Tactical Systems Division, General Electric Aircraft Engine Group, and Avco Everett Research Laboratory. Steve was Captain in the U.S. Air Force (Turbine Engine R&D).

### Seth Brown

BS Mathematics and Economics MS Accounting (Georgetown University)

Chief Financial Officer North America

Appointed January 2005. Mr Brown has extensive financial management experience in aerospace and defence companies including senior positions with Smith's Aerospace – Electronic Systems, Fairchild Defense, Matra Defense Company, Fairchild Space & Defense Corporation. He was also previously a senior auditor with Arthur Anderson & Co.

## Markets and Products

## Adacel's Markets

Adacel is a global leader in simulation and control systems and services for the aviation and defence market segments in which it competes. These markets are serviced from Adacel's operations in North America, Australia and Europe.

#### **United States market**

Adacel's largest market is the United States. The key market sectors we are targeting in the US are the defence forces, the civil aviation and airports sector, aerospace universities, Homeland Defence and major suppliers to these markets. Our US customers during 2005 included the Air Force and Army, the Federal Aviation Administration, NASA, Lockheed Martin and aeronautical universities and colleges such as Embry Riddle, Daniel Webster and Middle Tennessee State College.

#### Australia and international markets

In Australia and international markets outside the US, our primary segments are civil and military aviation organisations. During 2005 we provided products and services to Europe, the Middle East, Canada and Australia. Customers included Airbus, air traffic authorities and users of our training products in Austria, Hungary, the United Arab Emirates, Saudi Arabia, Portugal, Italy, the UK and Canada.

### **Adacel's Customers**

Adacel's simulation and Air Traffic Management products and services are in use in around 30 countries around the world.

## Office & Customer Locations

### OFFICE LOCATION



Adacel's MaxSim system in use at the US Army's Fort Rucker.

(Photo by Andrew Stamer – Fort Rucker Public Affairs)





A MaxSim Tower simulator in operation.

## Adacel's Products and Services

Adacel develops advanced simulation and control systems for aviation and defence. Our core areas of operation are:

- Air traffic control simulation and training systems
- Datalink-based air traffic management automation systems
- Associated aviation and defence segments where we can utilise our existing simulation and voice recognition technologies

### Adacel's core products are:

#### **ATC Simulation**

- MaxSim: Market leading advanced air traffic control tower and radar simulators for training and research that range from desk top through to fully-immersive 360 degree airport tower replicas, and includes:
- Tower cab training
- En Route Radar training
- Precision Approach Radar simulator
- Voice communications systems
- Voice recognition and synthesis

## **Air Traffic Management**

 Aurora: Adacel's world-class advanced automation system available for datalink-based Oceanic and continental air traffic control

## Associated new markets

- Adacel's intelligent speech-driven technology for aircraft cockpit control
- Security Control Room simulation systems for training operators of security control rooms in critical national infrastructure such as airports, harbours, nuclear power plants and research establishments.
- Simulated ATC environments for flight simulation and aircraft systems research and development
- Airport Driver simulator for training airport ground crews

### Support and maintenance services

- Support and maintenance: Adacel provides customers with "whole of life" support services for their simulation systems to help them maximise the value of their investment
- Onsite support personnel: Adacel has developed and launched a service to provide on-site personnel to operate and maintain the ATC simulation systems for customers

## **Review of Operations**

## ATC Simulation highlights of 2005

- US Air Force Tower Simulation System program:
   Further deliveries of MaxSim tower simulators
   Program support phase ramps up with contract extension for TSS service centre support
- Strong presence in Europe and Middle East
- Installation of tower simulators for US FAA Training Academy in Oklahoma City

## **ATC Simulation**

Adacel continues to be an international leader in simulation systems for training civil and military air traffic controllers and for research on airport traffic procedures and processes.

Civil and military aviation bodies in the United States continued to be key customers for Adacel during the 2005 financial year. Adacel supplied simulators to the US Air Force Tower Simulation System (TSS) program for which Adacel was selected in 2002. While revenues from this program were lower in 2005 due to the completion of the main part of the TSS delivery program in the prior year, the program support phase ramped up, with a contract extension awarded for additional service centre support. Adacel provides a comprehensive global support program that operates a fully equipped support facility — the Training System Support Center — for the TSS program.

The Federal Aviation Administration is also an important customer for Adacel. During the year we installed additional MaxSim tower simulators at the FAA Training Academy (Mike Monroney Aeronautical Center) in Oklahoma City and recently, in July, announced a contract to supply the FAA with a further three tower simulators that will be used to enhance the FAA's air traffic control tower simulation training program at operational control facilities. This brings to fourteen the number of Adacel MaxSim tower simulators operated by the FAA at the FAA Academy in support of the Tower Cab training program, the William J. Hughes Technical Center for airport analysis and development, and at operational centres in Chicago, Miami and Ontario, California.

We also continued to be a key supplier to the aviation universities and colleges sector in the

US during the year, with products and services delivered to such organisations as Embry Riddle, Daniel Webster College and Middle Tennessee State College.

### International markets

Outside the United States, we continued to build our international position during the year, particularly in Europe and the Middle East, with revenues increasing on the levels of 2004. We have a strong reputation internationally for our product innovation and technology, and this has been further boosted by the world-wide recognition of our industry-leading voice recognition and synthesis. In the international market outside the US, civil and defence aviation bodies are our core customer base and Adacel simulators are operational in aviation training establishments in around 30 countries.

During the financial year, we were awarded a \$4 million contract for tower simulators by Italy's air traffic authority, ENAV (Ente Nazionale de Assistenza Al Volo) and recently announced a further contract valued at up to \$15 million. This latest contract has a base value of around \$8 million and is for 270-degree ATC Tower simulators to be installed at ENAV's Forli facility. Options to the contract, valued at up to \$7 million, are for additional tower and radar simulators.

Other customers in Europe during the year included air traffic bodies in Austria and Hungary.

In the Middle East, new contracts totalling more than \$4 million helped us consolidate our position in the region. We now have systems in operation in Saudi Arabia, United Arab Emirates, Oatar and Jordan.

## Services and support

Adacel provides a full range of ongoing annual training, e-learning and support and maintenance services, such as Adacel's Simcare, to assist its customers in maximising the value of their systems throughout the life of the product.

With the large base of Adacel ATC simulation systems now in use throughout the world and an extensive presence in North America, this offers the company the potential for increasing levels of additional, recurring revenue. A key part of this is the Simcare program we provide annually to growing numbers of our simulation system customers.

We have also recently introduced a service to assist our customers in operating our systems by providing on-site support personnel. This service allows customers to utilise their own valuable staff resources on the core activity of training.

## **Market opportunities**

Simulation has become a key part of air traffic controller training. In the US, Adacel simulators are used to train US Air Force, Army, Special Operations and other defence personnel, as well as civilian controllers trained in FAA centres and aerospace universities and colleges.

With a growing demand for new controllers required to replace a large number due for retirement over the medium term, North American authorities have indicated a need to increase procurement programs for Air Traffic Control simulators. Similar factors are also likely to affect our international markets.

## ATM highlights of 2005

- Milestones in US Oceanic air traffic management modernisation program
   US ATOP system operational at New York control centre
   Extension of Adacel contract with Lockheed Martin for ATOP
- Adacel also works with Lockheed Martin on the US En Route Automation Modernization program under agreement finalised during the year
- Adacel awarded contract to upgrade Portugal Oceanic ATM System

## Air Traffic Management

Adacel continues to be at the forefront of ground-breaking national and international air traffic management systems through its work in the US and internationally.

Adacel's Air Traffic Management operations continued to perform well in the 2005 financial year. Adacel provides software and software development and support services for air traffic management systems in North America and internationally.

Through its extensive experience in Oceanic systems, Adacel has been a pioneer in datalink-based Air Traffic Management and has worked for several years with Lockheed Martin on the US Federal Aviation Administration's Advanced Technologies and Oceanic Procedures (ATOP) program. This FAA program is modernising the US Oceanic Air Traffic Management system and Adacel's software is at the core of the system. A further extension to the contract during the year has boosted the levels of work with Lockheed Martin.

In June 2005, the ATOP program reached a milestone when the system became operational at the FAA's New York Oceanic control centre, providing automated control of air traffic in the US North Atlantic Flight Region. The system will become operational at the FAA's two other Oceanic centres — at Oakland in California and Anchorage in Alaska — within the next year.

Also during the year, Adacel formalised an agreement to work with Lockheed Martin on another ground-breaking FAA program, the En Route Automation Modernization program. The ERAM program will replace the existing US en route air traffic control automation systems and selected en route infrastructure with a modernised automation environment that supports legacy and new functional capabilities at all 20 Air Route Traffic Control Centres in the continental United States, as well as the William J. Hughes Technical Centre in Atlantic City and the FAA Academy in Oklahoma City.

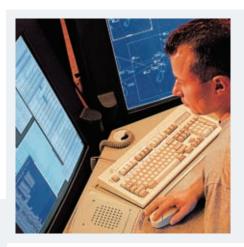
Outside the US, Adacel's strong position in Oceanic systems was also reflected in a contract from Portugal's air traffic services provider, NAV Portugal, to upgrade the country's Oceanic Air Traffic Management system. The system, which uses Adacel's Aurora Oceanic ATM automation software, controls international air traffic in the Santa Maria Oceanic flight region of the North Atlantic. Under the contract, Adacel will upgrade the Oceanic system's computer hardware, operating systems and real time controller displays.

Adacel's technology in operation at Airways New Zealand's Oceanic Centre in Auckland.

## Market opportunities

Adacel Oceanic systems are operational in the US, Portugal, New Zealand and Iceland. Our Aurora Oceanic automation software is at the core of these systems. Widely recognised as the leading technology in datalink-based Oceanic systems, Aurora uses satellite-based data links, information from global positioning and provides radar-like displays for controllers.

With our experience right from the early days of Oceanic air traffic systems development, Adacel has established an international reputation for its capabilities and software. This gives us a strong base to address opportunities in the Oceanic market for new installations, upgrades and support, as well as in other areas of air traffic management.



## **Review of Operations**

## Advanced Programs highlights of 2005

- Airbus selects Adacel simulation technology for aircraft cockpit and systems R&D
- Adacel launches security control room simulator into US Homeland Security market
- Joint Strike Fighter program continues
   JSF voice automated cockpit control system program continues
   Adacel also selected as part of team for JSF training courseware
- Entry into US airport driver training market

## **Advanced Programs**

During 2005, Adacel advanced its strategy of taking its industryleading simulation products and technologies into associated market segments.

Adacel has established a strong reputation with its customers for its technological leadership in key areas of simulation developed by the company for air traffic control training and research. This includes our simulation technology, our environmental model, visual databases, aircraft models, and our internationally-acclaimed speech recognition and synthesis systems. These technologies and products also offer opportunities in associated aviation and defence areas, particularly where we have existing customer relationships.

During the financial year, we continued to progress our entry into associated markets in such areas as aircraft simulation and systems research, security control operator training systems, airport driver training, as well as speech automated cockpit control.

We continued work on development of a speech-enabled cockpit control system for the multinational Joint Strike Fighter program. This initial work is being undertaken for Lockheed Martin as part of the System Development and Demonstration phase of the JSF program, with options to licence the technology for up to 3000 aircraft that are expected to be manufactured. Speech controlled cockpit functions are a new area for civil and military aircraft and are expected to have a significant impact on pilot efficiency and effectiveness. Adacel was also recently selected as part of the team for development of training courseware for the JSF.

Another potential market for our simulation technology is in aircraft flight simulation and aircraft systems research. During the year, we were selected by Airbus to supply Air Traffic Control simulation technology for use in the research and development of Airbus cockpit and aircraft systems, including for the world's largest aircraft, the new A380. The Adacel technology will generate simulated air traffic and be connected to multiple Airbus applications, creating intelligent "real life" air traffic scenarios for the development and evaluation of Airbus components across the range of new and existing Airbus aircraft. In addition to its world class technological capabilities, Adacel was chosen against strong competition on the basis of the strength of its Intellectual Property base.

During the year, we also began marketing a Command and Control Security Simulator into the US Homeland Defence market. Based on our existing simulation technology, this simulator has been developed for training security control room operators in critical national establishments such as airports, nuclear power facilities and research establishments. The systems simulate the surveillance, security and communication systems used in security control rooms, providing training for crises that would be difficult to replicate in an operating centre. We recently announced our first contract in this market, awarded by a key US national security research establishment, Sandia National Laboratories, in Albuquerque, New Mexico. Our simulators are applicable to security control rooms in large numbers of establishments throughout the US. With the continued emphasis on homeland security, there are increasingly stringent training requirements for security control room personnel in both civil and defence establishments.

## Market outlook

The contracts won and worked on this year represent a successful entry into these new market segments. We are in the early stages of market entry and as such, revenues from these new areas were modest in 2005.

The strength of our technology, our reputation and our strong customer base will help provide the company with further opportunities in these new markets.



Adacel is developing a speech-enabled cockpit control system for the F-35 Joint Strike Fighter program.
[Photo: Lockheed Martin]

Adacel has supplied simulator technology to Airbus for use in research and development of cockpit and aircraft systems. [Photo: Airport simulation from MaxSim

Tower simulator)



