

50 YEARS OF DISPLAY LEADERSHIP

Volume 6 Issue 1



William Hutchinson
 Managing Director.

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From The Managing Director

I am very pleased to contribute to our latest newsletter as Thomas Electronics of Australia celebrates its 50th year. We see this as a great milestone achieving 50 years in an industry that has changed so radically and by any assessment Thomas would have to be considered one of the survivors of the Australian Electronic industry!

On reflection, "our survival" has only been possible due to the business having the ability to "re-engineer itself" particularly through major re-structures in 1975 and 1994 which adapted the company for the current business environment and focussed on activities with future potential.

I must also thank a number of our long term customers for their ongoing support without which we would not have been in business today. Sony, Panasonic, IBM, HP/Compaq, Philips, Sun Microsystems, NEC, Qantas, Mitsubishi, the RAAF and RAN have all been customers for nearly twenty years and we are grateful for their ongoing business. We are planning a birthday celebration for later this year and hope to be able to entertain a large number of our customers and business colleagues.

I am also very pleased to announce that Thomas has recently been granted European Aviation Safety Agency (EASA) certification as an Authorised Maintenance Organisation. This initiative which has taken over five years of strenuous effort to achieve, enables Thomas to provide cost-effective maintenance support to the European aviation industry. With the 2006 Avionics Maintenance Conference scheduled for Paris in early April, Thomas is looking forward to introducing our new capability to the European market which has already indicated strong interest.

As we enter our next 50 years, I am confident that the best is yet to come for Thomas! The company is a well-placed SME in both the Aerospace and Defence and Information Technology sectors with an excellent team and well-earned reputation for customer service. I am certain we will have ongoing challenges to overcome along the way, but believe we are up to the task!

EASA Approval

Thomas Electronics of Australia has been awarded the European Aviation Safety Agency certification (EASA), effective 1st February, 2006. Certificate No.: EASA.145.0311.

EASA approval will enable TEOA to repair and overhaul avionics components for European airlines, as well as for maintenance and repair organisations (MROs), allowing the company access to the highly regulated European aviation market.

The certification audit process, conducted by EASA delegates and Dutch IVW (Inspectie Verkeer en Waterstaat), took 18 months. The IVW representatives were very impressed during their visit to the Milperra facility. They commented that TEOA's procedures – FAA, CASA and ISO 9001:2000 were exceptionally well-structured, and made positive comments about the professionalism of Thomas's operations.

The EASA certification is another significant milestone in the company's 50 year history.



MD William Hutchinson and European rep John Smith meeting with IVW inspectors following EASA acceptance.

Avionics Maintenance Conference 2006

Thomas Electronics of Australia will be attending the annual Avionics Maintenance Conference. This conference attracts over 750 maintenance professionals from the world's major airlines. It will be held in April 2006 at Euro Disney just outside Paris, France.

to a warm reception, it took the floor to announce the DU7000 support initiative for the B747-400. The company has a history of announcing new support schemes at the AMC, and visitors to its stand are invited to enquire about new initiatives.

The conference aims to promote increased reliability and reduced transport costs in air transport avionics. A major focus in 2006 is to look at novel support techniques through the sharing of technical information between the different carriers.

Given Thomas's Australian location, the AMC also presents an excellent opportunity to thank its customers for their support and provide an opportunity to share in its success. By providing some good old-fashioned Australian hospitality, Thomas extends thanks to its international clients.

At the 2001 AMC Thomas made its first impression on the international market when,

Tarong Power Station Display Upgrade

Thomas Electronics of Australia recently completed a display upgrade for Tarong Power Station in Queensland.

Vartech offers a wide range of CRT and LCD monitors in their range: Thomas chose the CRT option as this fitted within the customers' spatial constraints, and provided the most cost-effective solution. Electrical waveforms and measurements of the video signal were collected, and a signal converter was designed and fitted inside each monitor, allowing the monitors to be connected directly to the Hitachi mainframe.

One of the major challenges faced by Thomas' engineering group was that the original Hitachi mainframe computer that drove these monitors used a proprietary legacy video signal. This was commonly used during the early 1980s as various computer video transmission formats were emerging prior to standardisation. Thomas used its extensive network of suppliers to search for an off-the-shelf solution to convert the Hitachi mainframe video signal to a standard video signal, but concluded that a custom signal converter would need to be designed and manufactured.

This installation is just another example of how Thomas is able to provide customised display solutions for difficult user requirements.

Thomas is the Australian Agent for Vartech Systems (USA), and selected one of their standard 21" industrial monitors for the project.

Pacific 2006 – International Maritime Exposition

Thomas Electronics of Australia, cooperating with Australian Industry Defence Network (AIDN), showcased a wide range of innovative industrial and marine displays at Pacific 2006. These included well-known international brands such as Conrac and Technology Dynamics Inc.

Highlights of Pacific 2006 included visits to corporate stands by Australia's New Minister of Defence, Dr Brendan Nelson, and the Chief of the Navy, Vice Admiral Russ Shalders. In addition to the other exhibitors, three RAN vessels were moored alongside Darling Harbour for all to admire.

The exposition provided the perfect opportunity for marketing and promoting the Thomas brand. It also enabled Thomas staff to meet with the key maritime and naval decision makers of Asia Pacific region.



AMC Conference 2006 - Paris.



21" Vartech Open-frame CRT Displays Installed in Tarong Power Station Control Room.



Pacific 2006

Back To The Future: Thomas Renews Television Business Contacts

In recent times, the Electronic Services Group (ESG) has worked successfully to renew business dealings with both local vendors and offshore manufacturers of TV sets.

In 1994, when ESG discontinued re-gunning CRTs due to a declining market, it was an end of an era for Thomas and the local television industry. However in 1987, the company had made the strategic decision to service the IT market by moving into the repair service for CRT-based monitors and terminals. Today, ESG is the largest repairer of video display units in Australia, with the technical expertise and logistical infrastructure to handle high-volume repair in support of OEMs and corporate end-users.

Over the last three years, there has been a convergence of technology; display products in the IT and consumer electronics have merged. The introduction and ready market acceptance of LCD and plasma television sets has drawn ESG back into providing repair service to the television market. Many of our former television customers remember Thomas CRT manufacturing and re-gunning service with fond and positive memories.

Currently, through DST (Display System Technology), ESG provides repair service for large-size LCD and plasma panels at component levels.



From Re-gunning CRT to Servicing Flat Panel Displays

Thomas Electronics of Australia Historical Timeline

1956

Thomas Electronics of Australia commenced operations as a manufacturer of black and white (monochrome) television tubes in Riverwood, NSW.

1975

Discontinued manufacture of monochrome picture tubes; Adapted manufacturing facilities for "re-gunning" of colour picture tubes.

1980

Resumed high volume production of monochrome display tubes for video monitors and terminals.

1984

Production of Avionic CRT assemblies for F/A-18 and RAN Seahawk Helicopters under Australian Industry Involvement (All) program.

1987

Commencement of the repair services for video display monitors and terminals.

1989

Commencement of refurbishment activity for Avionics CRT assemblies for Commercial Air Transport; CASA Certificate of Approval for maintenance of aircraft components (inaugural customers – Ansett and Qantas).

1994

Discontinued colour CRT re-gunning and monochrome CRT production.

1997

Awarded ISO9001 Quality Assurance certification by SGS.

1999

Certification by United States FAA as approved avionic repair station; Establishment of a repair capability for flat panel displays.

Relocation to 2100sq metre facility in Milperra, incorporating Display System Technology (DST).

2000

Establishment of representative office to service North American market.

2002

Opened European representative office to service airline market for display overhaul.

2003

Joint FAA/CASA approval of Thomas support initiative for 747-400 primary flight display (DU7000).

2004

Expanded premises to include neighbouring building; Added 330sq metres of new Avionics Laboratory.

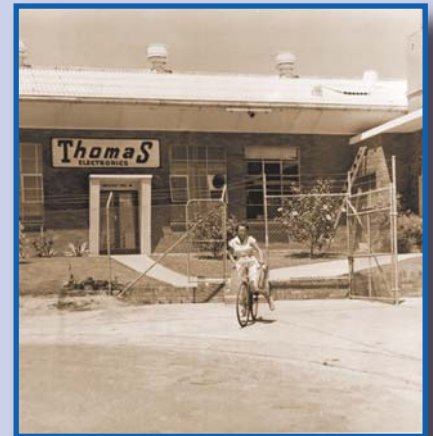
Opening of Melbourne branch office and service centre.

2005

Expansion of clean room facilities and LCD repair capabilities for LCD and plasma television; CAAC (China) approval as Part 145 Maintenance Organisation.

2006

Thomas's 50 year anniversary; EASA (European) approval as Part 145 Maintenance Organisation.



Thomas Electronics - 1958



Thomas Electronics - 2006

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- EIZO Corporation of Japan
- PureDepth MLD

Our Commitment to Customer Service

- We listen to you, our clients
- We are always ready to help
- We respond to your immediate and long-term needs
- We exceed expectations

We welcome the ongoing challenge

Historical Perspective of Thomas Cathode Ray Tubes (CRTs)

In its 50 year history, Thomas Electronics of Australia has kept up with many changes in technology and in the business environment. The company was originally founded as a subsidiary of Thomas Electronics Inc., a US manufacturer of black and white (monochrome) picture tubes. The company built up a reputation for supplying high quality tubes to local television manufacturers, and was the mainstay of the business until the mid 1970s.

Then along came colour. The monochrome tube business declined swiftly in the mid 1970s, and Thomas investigated the possibility of switching to colour. Due to the government policies of the day, and pressures from overseas manufacturers, this would have been uneconomic. However, the company realised that it could bring its significant expertise in CRT technology to bear by replacing the electron guns in "worn-out" colour picture tubes. This was the start of the colour "re-gunning" business.

In the late 1970s, to everyone's surprise, the monochrome tube plant was re-activated to supply the computer companies who required monochrome display tubes for their computer terminals.

In the mid-1980s, Thomas successfully participated in the manufacture of the cockpit displays for the F/A-18 Hornet and S70-B2 Seahawk helicopter. In this way Thomas's Avionics business was born. The business has

grown ever since, and currently services not only the Australian Defence Force, but a significant number of major international airlines.

Thomas looks forward to the opportunity to provide "display leadership" for many years to come, and would like to thank our customers for their valuable relationships and ongoing support.



CRT Manufacturing - 1950s