



Display

A Thomas Electronics of Australia publication – Winter 2001 **NEWS**

Outstanding export achievement

Thomas Electronics of Australia has won the 2001 Western Sydney Industry Award for outstanding export achievement by a small / medium size enterprise. It was also highly commended for “outstanding export achievement by an emerging exporter”, as well as being a finalist in the global excellence and innovation categories.

The annual awards – an initiative of the New South Wales Government’s Office of Western Sydney – have been developed in partnership with industry, leading industry organisations, Chambers of Commerce, Western Sydney Councils, State and Commonwealth Government agencies, and the University of Western Sydney.

Minister for Western Sydney Kim Yeadon says the awards encourage excellence and innovation among businesses in Western Sydney, the third largest regional economy in Australia.

“Industry and economic growth in a globally competitive world rely on businesses taking greater advantage of new and emerging technologies, leadership and entrepreneurialism, and the knowledge and skills of our people,” he says.

“The prestigious Western Sydney Industry Awards celebrate and support leading firms in Australia that have successfully put these insights into practice.”

Awards were presented across 13 categories including innovation, environmental management, industry training and export.

Thomas Electronics’ managing director William Hutchinson says the export awards are recognition of Thomas Electronics’ efforts over the past four or five years.

“It’s taken a lot of persistence because the export markets are very difficult to crack,” he says. “I guess the judges were impressed that a small firm from Milperra was taking on such large international competitors and succeeding.”

Based in Western Sydney since its establishment in 1956, Thomas Electronics’ main export recipients are airlines. Its clients include Delta Airlines, Cathay Pacific,

Singapore Airlines, Air New Zealand, Federal Express and Air Canada. Thomas Electronics’ display systems, display repair services and avionics CRT assemblies are exported to the USA, Canada, New Zealand and Asian countries including Singapore and Malaysia.



Thomas Electronics – Succeeding over large international competitors

Airlines plug-in to burn-in

Airlines have begun using a cost-effective test and conditioning unit for their CRT ageing process, freeing up precious time on their avionic test equipment for other fault finding and alignment procedures.

QANTAS and Delta Airlines are utilising the TV5502 Series Burn-In Station technology developed and manufactured by Thomas Electronics.

Thomas Electronics’ senior applications engineer John Xuereb says airlines or repair houses have to burn in CRT assemblies when they purchase them new and each time they repair them.

“Burning in the unit activates all elements in the CRT and eliminates imperfections from the CRT manufacturing processes. It ages the CRT so it’s more stable in operation – for example, so it doesn’t fluctuate between high brightness and lower brightness,” he says.

“The Burn-In Station frees up the airlines’ expensive test beds for more important repair activity and provides consistent, reliable burn-in of CRT assemblies.”

QANTAS has been involved with Thomas Electronics’ Burn-In Station technology since the prototyping stage and contributed significantly to its development.

Development of the Burn-In Station is only one of a number of display-related projects undertaken by Thomas’ electronic project group. The group has also developed and manufactured a variety of display units for use in simulator applications. These units accurately mirror the functionality of the original aircraft cockpit display unit, but at a significantly lower cost and ease of connection to the simulator computer than the original aircraft display unit.

These Thomas facsimile display units are used by airlines and defence forces to provide realistic crew training in ground-based simulators. Specific aircraft types covered include B747-400, F111, PC-9 trainer and S70-B2 Seahawk and SH60 Seasprite helicopters.



TE’s John Xuereb with the Burn-In technology

from the managing director



Welcome to Display News, a regular publication produced to keep our customers, suppliers and staff in touch with developments at Thomas.

The past financial year has seen continued growth both locally and overseas for us, with further development of our display systems capability.

Highlights have included the dramatic growth in our avionic overhaul business with international airlines Delta, Singapore and Cathay Pacific. We also won the export category of the Western Sydney Industry Awards, as well as being presented an Outstanding Vendor Achievement award from Sun Microsystems Inc.

Our strong revenue growth of nearly 40 per cent over the past year has brought staffing, equipment, facilities and working capital challenges. I believe we've responded well to all these challenges. Our staff are our greatest asset and we've been fortunate to recruit additional employees, bringing our team to over 50. Earlier this year we took six Thomas staff to San Francisco to participate in our first international trade show – the 2001 Avionics Maintenance Conference. With the interest we attracted from the international airline industry, I'm confident we'll be supporting the majority of international carriers within two years.

Thank you to our customers for your ongoing support. We greatly value our partnership with many long-term customers in the IT, defence and aerospace sectors.

Here's to another great year!

William Hutchinson

New SeaView gives diverse display

“Not only will it change the way fishermen, cruisers and professional mariners see the world around them, it's fully submersible”

Thomas Electronics of Australia has become Australian and Asia-Pacific distributor of the SeaView monitor, built specifically for shipboard use and the harsh marine environment.

The SeaView MM-1500 Marine Display – a 15 inch colour LCD with 1280 x 1024 pixel (SXGA) resolution – features a UV-resistant watertight enclosure rated to withstand temporary one-metre submersion. This means sea spray, rain, humidity or occasional splashes from washdown hoses are not a problem.

The monitor has multiple inputs for navigational and entertainment functions, providing brilliant, high-detail display of radar, chart plotter, sonar or other vital navigation data. It works as a stand-alone monitor with most desktop and laptop PCs and supports a range of video formats for viewing images from a VCR, DVD player, TV tuner or onboard camera.

“Not only will it change the way fishermen, cruisers and professional mariners see the world around them, it's fully submersible,” says John Xuereb, senior applications engineer at Thomas Electronics.

To ensure a detailed full-screen image when switching between navigational instruments or video inputs of varying resolution, the SeaView can automatically scale the display from 640 x 480 to 1280 x 1024 pixels.

A scalable, movable picture-in-picture feature allows multiple windows to be run, while a built-in touch pad provides pointing device functionality similar to a mouse.

John says the American-made SeaView is engineered to provide an easy-to-read display in any light and from any angle.

“In auto mode, an exclusive ambient light sensor measures the light level and automatically adjusts the display brightness to optimise viewing, whether you're running in bright sun, overcast conditions or at night.”



amc

San Francisco showcases avionics maintenance

A team from Thomas Electronics participated in the 52nd Avionics Maintenance Conference (AMC) in San Francisco, California earlier this year.

The AMC is an annual event where airlines, airframe manufacturers and avionics suppliers gather to discuss commercial aviation issues.

Thomas Electronics showcased its avionic displays and the new Burn-in Station at the conference, Thomas' first international trade show.

Managing director William Hutchinson says with Thomas Electronics' recent US Federal Aviation Administration (FAA) certification, Thomas was able to generate tremendous interest in its avionic capability from major airlines during the conference.

"We also received great support from existing customers Qantas and Delta Airlines," he says.



TE's North American representative Jeff Boyle speaking at the AMC Forum. TE's Diana & Jeff Boyle with Stephanie Hutchinson

LCD: Looking ahead

As a manager of the largest repairer of display monitors in the southern hemisphere, Thomas Electronics' Robert Lum keeps a close watch on market trends.

Thomas Electronics is expanding its repair capabilities to cater for increasing demand for liquid crystal display (LCD). It repairs LCDs at both board and component level.

"By 2005, the price of LCD monitors is expected to be at an affordable level where there's likely to be a 50:50 ratio of LCD monitors to CRT monitors in the market," Robert says.

Although the price of a 15" LCD panel has come down by about 20 per cent in the past year, the costs are still high for end-users of LCD display products.

Robert – manager of Thomas' electronic service business unit – says demand for LCD has outstripped supply.

LCDs offer advantages over CRTs in that they generate less heat, use less power and save space.

"The space saving is not only because the item is smaller. It's also because you can work

LCDs side by side without the magnetic interference that you get between CRT monitors."

A small group of companies, mainly from Japan and Korea, dominate the manufacture and supply of LCD panels but Robert says they have not yet realised their expected yields and quality.

Taiwanese manufacturers of LCD display products such as notebooks, laptops, palmtops and monitors have been the largest consumers of LCD panels.

These Taiwanese manufacturers are determined to be more self-reliant and a number have invested substantially to commence LCD panel manufacturing.

The development of additional manufacturing capacity in Taiwan is gradually driving the price of LCDs down, he says.

Thomas' existing strong relationship with Asian display equipment manufacturers has enabled its electronic services group to rapidly develop repair capability in this new technology area.



Expanding LCD repair capabilities... TE's Robert Lum

In other monitor repair news...

Thomas Electronics is already outgrowing the new premises it moved into in 1999!

In June this year the company opened a 1000m² satellite workshop nearby to provide extra space for monitor repair.

Audited, assessed, approved

With airlines around the world relying on Thomas Electronics of Australia, exact and demanding standards are placed on the company's quality system.

The company is regularly audited by aviation authorities and airlines.

Earlier this year, Delta Airlines assessed Thomas Electronics as having met the requirements of the Co-ordinating Agency for Supplier Evaluation (CASE).

Thomas attained US Federal Aviation Administration (FAA) Certification as an FAR-145 Repair Station in 1999 and also holds a certificate of approval from the Australian Civil Aviation Safety Authority (CASA).

Jennifer Collath, who assists with the quality systems at Thomas Electronics, says FAA and CASA impose a lot of requirements.

"Every process is audited – for example, when we refurbish a CRT, we submit a process which itemises each task and material used. CASA and FAA then approve each process submitted for every piece of equipment we work on. It is a very

controlled environment."

In audits such as the recent one by Delta Airlines, Thomas Electronics submits its processes and the customer may ask for modifications.

"They go through all of our documentation with a fine tooth comb."

Jennifer says Thomas Electronics' ISO9001 quality assurance certification ensures processes are in place for each of the company's activities.

The company's quality systems have been assessed and approved by organisations including United Airlines, Compaq, Rockwell International, BAE Systems, Boeing Australia, Kaiser Electronics, IBM and Sun Microsystems.

Thomas Electronics has held ASI822 Certification from the Australian Department of Defence since 1987.

Certifications pending include the United Kingdom Civil Aviation Authority and the European Joint Aviation Authorities (JAA) JAR-145 Approved Maintenance Organisation.

New sales & marketing team



Colette Dunne and John Xuereb

Thomas Electronics has created a new sales and marketing team.

With more than five years' experience as a development engineer in Thomas' research and development group, John Xuereb has been promoted to the role of senior applications engineer.

Colette Dunne has been promoted to sales co-ordinator after extensive experience with Thomas' administration group.

John and Colette will work together in a sales and marketing capacity.

products & services

- Avionic CRTs & CRT assemblies
- Avionic test equipment
- Display monitors
- Touch screens
- LCD, EL & Plasma flat panel displays
- Projection systems
- CO-AX & Fibre-optic video distribution systems
- CCTV systems
- Design & systems integration of custom display systems
- Night vision, tempest & sunlight-readable displays
- Monochrome & colour display CRTs
- Specialist depot level repair to:
 - Display monitors & terminals
 - Avionic display units
 - LCD monitors & panels
 - Switch-mode & HV power supplies
 - Laptop & notebook computers