



MEDIA RELEASE

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Tassie telescope “talks” to counterparts worldwide – thanks to fibre optic technology

The University of Tasmania and Aurora Energy today celebrated a milestone in Tasmania’s push towards high-speed communications with the completion of a high-speed fibre optic link from the University’s Sandy Bay campus to its Mt Pleasant Observatory at Cambridge.

Aurora and the University entered into a long-term partnership late last year for the provision of high-speed fibre optic communications in Hobart, Launceston and Burnie.

University of Tasmania Vice Chancellor Prof. Daryl Le Grew and Aurora’s Chief Executive Officer Dr Peter Davis today ‘plugged in’ the final connection point at the University’s Physics Department, opening the way for a flood of ‘real time’ data from the University’s radio telescope at Mt Pleasant to be received and analysed.

The direct fibre link between the Mt Pleasant telescope and the UTAS Sandy Bay campus will allow it to be linked in real time with other radio telescopes, both within Australia and internationally.

This real time processing will replace the transport of hard disks to Sydney, Washington and Germany for analysis, a process which formerly took weeks-months.

Tests in late March linked the Mt Pleasant telescope with CSIRO telescopes in Parkes (The Dish), Narrabri and Coonabarabran. The data was transferred from Hobart to Parkes in real time, at a rate of 128 million bits per second.

This is 500 times faster than the maximum rate for a standards ADSL connection, or equivalent to a DVD worth of data every five minutes.

“Although this is an impressive achievement, it is only the beginning,” Prof Le Grew said. “When the Tasmanian Research Education Network (TREN) upgrade is completed later this year it will be possible to further boost data rates to more than one billion bits per second.”

The 25-kilometre fibre optic link was constructed by Aurora and takes in some of the electricity company's critical business assets such as the East Hobart sub station, the Training Centre at Mornington and its Southern Operations Complex at Cambridge. It includes 18 kilometres of underground cable and seven kilometres of overhead cable.

The new Eastern Shore link complements other work under way to expand and enhance the Tasmanian Research Education Network (TREN) which is designed to connect key health, research and education facilities across southern Tasmania.

Prof Le Grew said the construction of the new fibre optic cable was particularly significant in light of the heightened debate surrounding Australia's broadband services and the need to upgrade the nation's 'information super highway'.

"I'm delighted that we have been able to reach this milestone in such a short time," he said. "Excellent progress also has been made on the other aspects of the TREN project with which Aurora is involved to link the Menzies Research Centre, the Clinical School of Medicine, the Centre for the Arts, the Conservatorium of Music, the CSIRO, the Antarctic Division at Kingston and TAFI Fisheries at Taroona.

"The TREN network also covers key sites in northern Tasmania, including the University's Newnham Campus, the Anne O'Byrne building and the UTAS Campus at Burnie."

Dr Davis said Aurora was developing specialist expertise in the telecommunications space, including the construction, commissioning and management of high-speed fibre optic communications.

"The Tasman Bridge crossing was a complicated cross-government agency effort involving the lifting of all pedestrian plates on the northern side of the bridge," he said. "Aurora's telecommunications group designed a cable for the Tasman Bridge crossing capable of withstanding the harsh installation environment.

"This unique double-armoured cable is the only one of its type in Australia and draws on world best practice. It has an expected life span of 50+ years."

Dr Davis said the network was constructed with full regard to the environmental sensitivities of each area with Aurora's telecommunications group working closely with all affected parties. Aurora also provided technical and civil support to DIER with the installation of other services across the Tasman Bridge.

Dr Davis said the expansion of the optical fibre network was critical to Aurora's management of its electricity network and in meeting its 2020 vision for enhancing supply reliability.

Released by Helen Bassett (UTAS) on 62262124 or Christine Ward (Aurora) on 62373341