AAD

Construction of the snow pavement required a range of specialised equipment – modified at the AAD headquarters at Kingston – to grade, roll and compact every square centimetre. A compaction roller (left) was used to compact the snow pavement while a proof roller was used to test the integrity of the runway. A snow blower (below) was used to clear snow from the runway surface.

Airlink on schedule

Test flights of a jet aircraft between Hobart and Antarctica are on schedule to begin this austral summer after successful runway construction trials in Antarctica during the 2005-06 season.

A five-person team constructed a 200 x 40 m trial runway at Wilkins Aerodrome, 75 km from Casey. Completion of the final 4000 x 100 m blue ice runway next season, will allow implementation of the Australian Government's $46.3 million commitment to establish regular flights between Hobart and Antarctica in 2007-08.

New equipment necessary for the construction and ongoing maintenance of the runway was purchased in 2005 and delivered to Casey in 2006. The equipment, valued at $3 million, included a bulldozer for moving large quantities of snow, a compaction roller weighing over 50 tonnes; a rubber-tracked tractor for pulling the rollers and planes, two snow blowers for clearing snow from the runway, and a wheeled loader. Prior to departure, most of the equipment underwent 'winterisation' modifications at the Australian Antarctic Division's (AAD) mechanical workshop at Kingston to ensure it would work in Antarctic conditions.

The equipment was used to test a method of making snow pavement, adapted from the method used by the United States Antarctic Program. The snow pavement is a few centimetres thick and is designed to bond with the blue-ice surface underneath. This provides an insulating and sun-reflective covering for the blue-ice, and prevents problems associated with surface and sub-surface melting of the runway. The snow pavement is suitable for most wheeled aircraft operations, enabling aircraft to operate in cross winds.

Fresh snow was harvested from the perimeter of the Wilkins runway site and levelled and compacted with heavy rollers. Each section of the trial area was passed over many times with varying weights, speed and tyre pressures. A consolidation period of 24 hours between each complete roll was required to ensure bonding with the ice underneath.

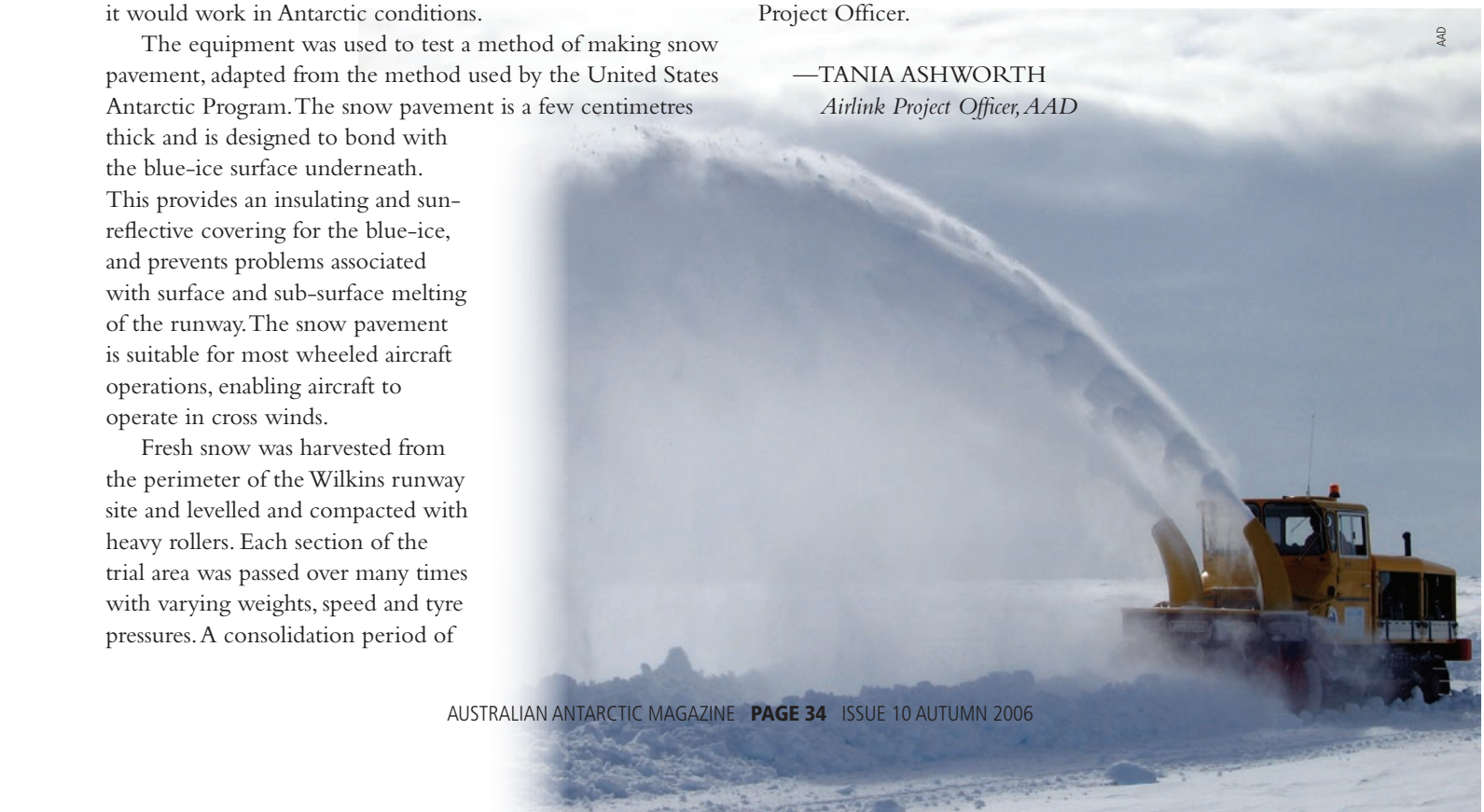
The Wilkins runway construction team returned to Australia in April for a well-earned break before preparations begin for this coming summer's runway activities.

The launch of an inter-continental service is fast approaching and test flights are scheduled for the 2006-07 Antarctic season. As the first inbound service is expected in 2007-08, it is time to plan for its arrival!

An 'Airlink Taskforce' was set up to initiate the integration of the air transport system into the existing AAD framework. At its first meeting in February, AAD Director Dr Tony Press, and Airlink Project Manager Charlton Clark, posed a question for the workshop participants to consider: 'What do we need to do to make the Airlink integration successful?' The 51 participants were then asked to work with colleagues over two days to help develop alternative and innovative solutions to a range of issues.

Moving from a wholly ship-based operation to a hybrid system (ships and aircraft) touches nearly every part of the AAD's operations. The issues raised have been added to the Airlink Project's Issues Register – part of the overall project's governance. Progress will be regularly communicated to the broader Australian Antarctic community. Membership of the Taskforce will vary to meet the needs of various phases of the project and the Taskforce is being coordinated by an Airlink Project Officer.

—TANIA ASHWORTH
Airlink Project Officer, AAD



AAD