

The aircraft will fly directly from Hobart to Antarctica at the start of the season and be based at Davis and Casey throughout the summer. The range of the aircraft will allow direct flights between Casey, Davis and Mawson and to remote field locations.

Runway construction trials complete

This season saw the completion of trial construction of the Casey ice runway. A 4000m by 100m area of blue ice was graded and tested to confirm the integral structure of the glacial ice surface to support wheeled aircraft operations. A laser-controlled grader was used to remove undulations on the surface before snow and ice was blown clear by a snow blower. Further testing using a snow compaction roller confirmed that the density and strength parameters required for jet aircraft landings could be met throughout the season.



MATT FILIPOWSKI

Grader marks from the 2002–03 season were barely visible on the Casey runway when construction trials commenced this summer.

CHARLTON CLARK, AIR TRANSPORT PROJECT, AAD

Island exchanges enhance quarantine protection



SANDRA POTTER

Quarantine Tasmania detector dog inspecting mail bound for Macquarie Island.

Collaborations involving parties variously interested in preventing the unintentional transfer of plant and animal species into and within Australia are proving that inter-island exchanges can be beneficial on the quarantine front.

Although more than 5,300 km distant from the Territory of Heard and McDonald Islands (HIMI), Quarantine Tasmania, makes an important contribution to the Australian Antarctic Division's management of HIMI as one of the most biologically pristine areas on earth. The absence of a continuous management presence within HIMI makes a multiple-barrier approach to quarantine difficult – the opportunities

for post-border surveillance and incursion response being limited. Accordingly, emphasis is placed on ensuring that quarantine requirements are met 'offshore', i.e. well before field parties land in the area. Under an AAD-initiated Memorandum of Understanding arrangement (HIMI sits outside the Quarantine Act), Quarantine Tasmania conducts inspections of Australian Antarctic Program vessels and equipment. After fumigation and/or examination for the presence of soil, plant and animal contamination, cargo is sealed in shipping containers to ensure that appropriate levels of biosecurity are maintained during transportation.

This arrangement is however, just one aspect of a broader program of quarantine management decisions and activities acknowledging that the protection of HIMI is understood to be a responsibility that is shared by expedition planners and participants. Fresh fruit and vegetables are not supplied because they are among food stuffs considered a high-risk pathway for introductions. The AAD issues only new field equipment and clothing, some items of which have been specially designed to avoid the use of seed-harboring velcro. Field personnel accept that they need to comply with personal and scientific equipment preparation and packing protocols.

The AAD is sharing its experience in the protection of environmentally sensitive areas of high conservation value – on a Panel

of Experts providing input to industry on enhancing the current quarantine management system in place at Barrow Island, a 1910-proclaimed Class A Nature Reserve off the Pilbara Coast of Western Australia. The reserve is a producing oilfield and the proposed site of a gas processing plant, the 'Gorgon Joint Venture' – the environmental, social, economic and strategic implications of which have yet to be fully considered by Government. Barrow Island is recognised internationally as a highly important biodiversity repository. It is home to 24 terrestrial species of fauna (five mammals, one bird, two reptiles and sixteen invertebrates) that occur nowhere else in the world, and another five species that are restricted in their distribution.

In more southerly latitudes, AAD-supported assessments of the viability and risk of establishment of plant propagules that may reach Macquarie Island are among mostly monitoring-focussed studies expected to enhance the Tasmanian Parks and Wildlife Service's management of the island as a World Heritage Area and IUCN Category Ia Protected Area (Strict Nature Reserve) managed primarily for scientific research. Deliberate and unintentional introductions, in particular cats, rabbits, rats and mice, have already had a serious and irreversible impact on the island's native fauna, flora and landscape.

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