

AERIAL WATER BOMBER FOR FIRES

CALM's firefighting operations take to the air this summer. Two water bombers will be on standby for the peak fire season between December and April. The bombers are expected to be put to good use tackling wildfires in Perth's outer suburbs and in the pine plantations to the north of the city.

Operation *Firebird* is a joint trial spearheaded by CALMfire and supported by the Fire and Rescue Service of WA and the Bush Fires Board. The trial will focus on the use and effectiveness of water bombing in combating wildfires, and follows extensive evaluations of aerial firefighting techniques in other parts of Australia over the past year. These evaluations have shown that bigger, agricultural-type aircraft, flying out of centres such as Perth and Jandakot airports, and the RAAF Base

at Pearce, could help contain wildfires before they cause extensive damage.

CALMfire manager Rick Sneeuwjagt said the planes would form a rapid-response, first-strike force aimed at limiting the spread of fires before they developed into major incidents.

"In themselves, the planes certainly won't replace the firefighting crews, but they will help to make effective use of ground crews working to bring fires under control," Mr Sneeuwjagt said.

The planes—Dromader M-18As—can use short, unsealed airstrips and carry 3 100 litres of water-foam mix, which is highly effective in suppressing moderate-intensity fires. The aircraft have state-of-the-art satellite navigation and communications equipment, which enables them to drop water, foam or retardant accurately.

Mr Sneeuwjagt—who prepared the Australian Fire Authorities' Council policy paper on aerial firefighting—said the technique gave ground forces a better chance to mount a direct attack before a fire could develop.

"Once a bushfire reaches a stage where ground crews cannot fight it directly, aerial attack is unlikely to succeed," he said.

The planes are used to 'bomb' the fire front with water, foam or retardants in a 'footprint' of up to 100 metres long and 40 metres wide. Each plane can make up to three drops an hour.

Although the number of bushfires in the outer metropolitan area is increasing, the fire agencies' real concern is the rising number of bigger fires that are occurring, mainly because of high fuel loadings (dry vegetation), and the inability

of ground crews to respond before these fires develop. Also, because of the urban sprawl, many fires pose a serious threat to life (including that of the firefighters themselves) and to property.

"While our firefighters limit the vast majority of fires to under four hectares in size, about 10 per cent of bushfires average more than 100 hectares. These bigger fires account for about 90 per cent of the suppression costs and most of the property losses," Mr Sneeuwjagt said.

"For example, the tragic Chidlow fire earlier this year destroyed property estimated at \$2.5 million and involved direct suppression costs of \$50 000, indirect costs of \$250 000 and almost 12 000 hours of time donated by volunteers. Added to that is the cost of damage to State assets such as powerlines and their replacement. Three big fires in the Gngangara pines in the past two years have cost around \$7 million in terms of suppression costs and lost revenue."

CALMfire has also begun a major upgrading program of its fire pumper fleet and is introducing other new firefighting techniques as part of its fire protection activities. The fleet of spotter aircraft is also being refurbished.

"While we are constantly improving our fire prevention and suppression capability, the community at large can make a huge contribution by being more 'fire aware'," Mr Sneeuwjagt said.



An aerial water bomber releases its load as it flies low over the treetops.

Photos - Michael Shea

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VOLUME TWELVE NUMBER 2, SUMMER 1996-97



Shannon National Park is the home of the Great Forest Trees Drive, another nature-based tourist attraction for the south-west. Read the story on page 17.



The rugged Kimberley coast was the location of the first maritime LANDSCOPE Expedition. Read all about it on page 10.



A huge volunteer effort has helped with the renewal of the Montebello Islands and the eradication of feral animals. (See page 47.)



Science has long-known the relationship between plants and habitats. Now we are 'Prospecting for Plants' using landforms as a guide. (See page 23.)

One hundred years ago, two members of an expedition to the Great Sandy Desert became lost. Read what happened to them in 'Land of the Lost' on page 36.

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COVER

The scientific name of the little penguin (*Eudyptula minor*) means 'little diver'. The wings of these flightless seabirds have evolved into flippers for underwater propulsion. The little penguin is the smallest of the 17 penguin species. Penguin Island has the largest colony of little penguins on the west coast. See 'The Changing Face of Penguin Island' on page 28.

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 Colour Separation by Prepress Services
 Printed in Western Australia by Lamb Print
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 Visit LANDSCOPE Online on our award-winning Internet site NatureBase at <http://www.calm.wa.gov.au/>



Published by Dr S Shea, Executive Director
 Department of Conservation and Land Management,
 50 Hayman Road, Como, Western Australia