

# Merv and Kim pinpoint positions with satellites

**MERV Smith and Kim Allen of Kelmscott Forest Management Branch have all the necessary back seat technology to sink a ship ... and find it afterwards.**

Here, Merv, right, adjusts a hand-held Differential Global Positioning System (DGPS) to get a better fix from overhead satellites.

The DGPS gives an immediate and exact position to within 10 metres, and the accuracy improves with more satellites.

The DGPS can be mounted on a back pack, but Merv and Kim are using it in the van, along with their VHF radios, mobile phones, pagers, (not to mention cigarette lighters and other amazing 20th century technology.)

The task for this field trip was to establish the Lane Poole Reserve boundary accurately, as a

by Tammie Reid

requirement specified in the management plan.

Although the Lane Poole Reserve boundary is shown on maps as being along roads, the precise location often results in variations of up to 50 metres off the road and into the scrub, blackberries and other tangles and pricklies in the Murray Valley.

Merv explains the application of the technology: "The beauty of this equipment is that it enables us to do our own detailed surveying in-house," he says.

"What we've been using is based on 'real-time positioning', linked directly to the satellites overhead at the time.

"We are linked to a geo-stationary communications satellite, that is fixed above the earth. We also are linked directly to

a selection of positioning satellites, constantly orbiting overhead.

"Our equipment has been superseded by newer DGPS systems, based on more sophisticated receivers, tracking more satellites and using smarter software, all of which give a precision of plus or minus a distance of less than a metre."

The newer system is used by senior research scientist Greg Strelein and forester Steve Quain of the Forest Management Branch, Bunbury, in surveying the plantations of the South West.

Greg says that the more up-to-date system also is used for locating other boundaries, timber harvesting, coupe boundaries, regeneration survey plotting, and logging road locations, and is part of the helicopter photography system used to update the jarrah inventory.

CALMfire will be us-



ing the satellite-driven system to plan, navigate and report for helitorching and fire-bombing operations

during the prescribed burn-

ing program. Satellite-assisted surveying has been in use by

CALM for some years, but always has been difficult under the forest canopy.

The new technology is

becoming an every-day precise tool, available to a wide range of CALM work areas.



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<sup>Heav</sup>  
~~Vern~~ Smith communicates  
with space satellites to  
map WA land.

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