

: Otago Daily Times; : Aug 18, 2005; : DUNEDIN; : 7



# Simulator stimulates study into pilots



Pilot Chris Harvey soared above the Taieri Plain and took a turn around Saddle Hill yesterday without leaving the University of Otago.

The flight was courtesy of the psychology department's flight simulator, which Associate Prof David O'Hare is using to investigate ways of improving safety in the air.

"The benefit of a flight simulator is that you can reflect a little bit better on what you might have done," Mr Harvey said yesterday from the cockpit.

Prof O'Hare said they were looking in particular at the decisions pilots made when they encountered challenging weather.

"The main source of fatal accidents has always been and continues to be, weather-related crashes," Prof O'Hare said.

Much of the research has been backed by the American Federal Aviation Authority (FAA), with support also coming from Nasa, which has helped the department build what is probably the most sophisticated flight simulator in the country.

The simulator's short-throw projector was yesterday showing an instantly recognisable Taieri landscape, while Mr Harvey monitored his instruments displayed on computer screens.

Prof O'Hare said they had designed a number of scenarios, generally involving the tricky interplay of New Zealand's topography and cloudy skies, to look at the decisions pilots made.

"It's not the airplane that goes wrong, it's a matter of people making decisions to fly safely in the sort of weather conditions you get."

One scenario tested on the pilots is where cloud descends on a ridge as they fly up a valley. They have to decide whether to push on or turn back, and if the decision is to turn back, whether there is enough room to turn.

Prof O'Hare's investigation indicates pilots do not get into trouble because they do not understand the risks involved in the decisions they make.

"Interestingly, we have found that it seems to have less to do with not understanding the weather or not appreciating the cues, but more to do with what you are prepared to do," he said.

Those who chose to push on over the ridge, in the simulation, actually rated the risk of doing so as higher than those who turned back.

"That's essentially what we are looking at, what drives that."

Prof O'Hare said the research would not be possible without local pilots donating many hours of their time to do the simulations.

**Low flying . . . The runway at Dunedin International Airport looms below for pilot Chris Harvey as he discusses his flight simulation with Associate Prof David O'Hare.**

PHOTO: JANE LAWRENCE