Testing times in "virtual" truck

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The simulator combines a realistic display and truck-like controls….and allows the trainer to order up hazards and emergencies at the click of a mouse button

This pic: Woolston wrestles with the gearstick in the "difficult" Roadranger mode
Below, left: Trainer Tane Stubbs reruns Woolston's driving performance on his laptop
Below, centre & right: NZ's first truckdriver training simulator is housed in a purposebuilt trailer, so it can travel the country

KERRANGGGGG!!! THE UGLY sound of gears clashing rings out – teeth gnashing against each other instead of meshing.

New Zealand Truck & Driver tester Trevor Woolston makes a second attempt to shift the manual 18-speed Roadranger….and this time there's the welcome sound of a momentary drop in revs as the box drops into second and he steers the B-train out onto the highway.

Into third without problem, but there's another nerve-jangling clash of metal as he tries to select fourth and the gearbox refuses to obey. He tries again…gets it through this time.

A short drive and he brings the rig to a halt on the roadside, shaking his head: If they're the best gearshifts he can make, he says he has no business driving a truck.

But Woolston is no stranger to seeing the world through a truck windscreen: He drove his own Macks for many years, has test-driven every truck make and model available in NZ for

around 30 years.

And this, he says in his own defence, is the least user-friendly transmission he's ever encountered: "The toughest gearbox I've tried…ever! You start to question your abilities."

The only saving grace is that the "monster" gearbox isn't in a real truck, so the missed shifts don't create any hazard to other road users…..no damage to gear sets. And, with a couple of clicks on a computer mouse, it can be re-programmed to make easier shifts…or to replicate the behaviour of any one of dozens of different gearboxes.

The reluctant Roadranger is one of the transmission options in the US-built TranSim VS IV computerised truckdriver training simulator recently commissioned by Auckland-based driver-training organisation, KDTraining.com.

The super-difficult gearbox is in a programme that simulator manufacturer MPRI calls basic mode.

The simulator creates a kind of virtual reality truckies' boot camp where new drivers can learn to make gearshifts and operate a truck in total safety – and without damaging transmissions or other running gear….

And where experienced drivers' skill levels can easily be checked and improved. The reluctant Roadranger mode is deliberately set up to be ultra-tricky – to provide drivers with a challenge that's difficult to meet but which, once mastered, will make driving a real truck second nature, with improved safety, machinery durability and fuel economy.

Woolston tests the simulator in the airconditioned trailer purposebuilt for KDTraining.com by Hamilton's Action Motor Bodies – trying a range of simulated trucks and gearboxes on highway and city roads.

He's confronted with the "boot camp" gearbox at the end of his session, during which KDT instructor and operations manager Tane Stubbs

calls up a variety of driving situations….simply dialling-in hazards from the simulator's multi-computer system.

Supervising the session is MPRI's Michael Hanak – in NZ to install the TranSim, get it up and running and iron out the bugs before the unit goes on the road (which it now has).

The simulator has a large "windscreen" in front of the driver, flanked by two screens that provide peripheral visual information. The side-screens include large mirrors that give a realistic view to the rear. A comprehensive dashboard even includes a light warning the driver to buckle his seatbelt.

Hanak says the roadscapes on KDT's simulator are generic ones, though customers can order specific roading or terrain. MPRI already does that for the US military to train soldiers for driving in Afghanistan and Iraq.

The trainer can order up pea-souper fog, wet road descents, snow and ice.

Woolston meets and deals with the hazards

Stubbs throws at him – accident scenes, animals suddenly darting onto the road, pedestrians stepping off the kerb unexpectedly.

"It takes a little while to settle into it," he says of the simulator's driving environment. There is, for instance, no passenger-side seat.

When Stubbs dials up a simulated flat tyre, "it's very realistic," says Woolston: "You can feel it through the steering wheel. I have to wrestle the wheel to regain control."

The only simulated hazard that he misses is the engine water temperature gauge hitting the danger zone: "Being reminded to keep an eye on the gauges is a great training tool," he enthuses, when his oversight is pointed out.

"The instructor being able to dial up low oil pressure or high water temperature reminds drivers to watch the dials. In modern vehicles you do expect to hear a warning alarm – but you should really be watching your gauges."

Woolston believes that the simulator "has

enormous potential. That basic mode Roadranger provides great gearshift training. If you can master that you'll be able to drive a real truck with a Roadranger gearbox no trouble at all."

Hanak says that simulators used by American trucking companies are proving invaluable in reducing the rate of accidents, lowering mechanical damage through unsympathetic operation and improving fuel economy by teaching drivers to operate their trucks more efficiently.

And fleet managers can assess existing drivers, with trainers analysing printouts of a simulated run and showing drivers where and how they could improve their performance.

Woolston likes the simulator's realism: "It gives you a real feel of what it's like to drive a B-train or a semi and allows you to learn to deal with safety threats with no risk at all.

"The worst thing a driver can do in the simulator is get a bad score….which is a lot better than damaging equipment or having an accident." T▪D