

Kiwi Warrior

The New Zealand Defence Force Electronic Warfare vehicles are among the rarest Land Rovers ever made. Now one is part of the Dunsfold Collection

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In the December 2020 issue of LRM we wrote at length about the Stage 1 V8s that were acquired by the New Zealand Defence Force (NZDF) in the 1980s. The best guess is that 566 were assembled between 1982 and 1986 in the New Zealand Motor Corporation's factory at Nelson, South Island, from CKD kits shipped out from Solihull.

It would be fair to say that the vehicle was not a great success, at least initially. The NZDF had specified a 24-volt electrical system, but this proved to be highly problematic. There were also some very odd engine issues including premature camshaft wear, with instances of cams lasting only 15,000 miles or so. Frequent misfire problems were only resolved with the fitting of Mallory electronic ignition systems.

The Stage 1's thirsty V8 was probably why the model did not sell at all well to military customers. In fact, almost all military buyers of the model were in the Middle East where nobody had to worry about the cost of petrol. For the NZDF, fuel consumption proved to be rather worse than expected and it would also become a significant issue when the country elected to





participate in the United Nations Protection Force (UNPROFOR) peacekeeping effort in Bosnia and Herzegovina in 1994. Operation Radian, as it was christened, would be New Zealand's first major overseas military deployment since the Vietnam conflict.

As the NZDF's first line transport vehicle, the Stage 1s would be an important part of the UNPROFOR deployment, but the first issue was that all the Stage 1s had been delivered as soft-tops and these might not be too comfortable in the chilly depths of a Balkan winter. Secondly, and of even more importance, was the fact that the 3.5-litre petrol V8 was not going to mesh well with the UN's diesel fleet policy.

The answer was to convert 25 vehicles to 300Tdi diesel power and replace the canvas tilts with hardtops. The vehicles went on to serve with distinction, and all are thought to survive today in the hands of enthusiasts, although it is

Modified cockpit is as functional as the rest of the vehicle

300Tdi conversion is very neatly done

reported that salt on the Balkan roads did them no favours. The Dunsfold Collection was able to acquire a standard V8-powered soft-top vehicle in 2020, which is thought to be one of only two in the UK.

The 300Tdi diesel conversions were very well executed and apparently impressed the NZDF top-brass, but it was clearly going to be far too costly to retrofit the 300Tdi across the entire Stage 1 fleet. The obvious answer was to convert the V8 to run on diesel, and the NZDF launched a project to look at this in detail. A single prototype was developed but sadly this interesting initiative went no further. In the early 1980s, Land Rover itself had tried to do the same thing when it was investigating the quickest and most efficient way to make a diesel-powered Range Rover to meet pressing demands from the continental European market. The development was undertaken jointly with Perkins under the codename Project Iceberg, but it came to nothing in the end and Land Rover chose the Italian VM diesel instead.

The 300Tdi conversion was resurrected in the mid-1990s when four more Stage 1s had their V8s replaced, although these vehicles were infinitely more interesting than the Operation Radian conversions. This time, the requirement was for an 'Electronic Warfare' vehicle and the fascinating truck you see on these pages is one of the three that are definitely known to have survived, although the fourth is believed to be extant but hiding somewhere in New Zealand.

The NZDF issued an instruction manual relating to the Electronic Warfare conversion in November 1997, and this summarises the work carried out in addition to the diesel conversion and the installation of the hardtop (there being none in the NZDF stores, they were apparently sourced by scouring the nation's scrapyards). A radio tower and roof rack were fitted to accommodate an aerial mast, and the interior was fitted out with the radio and surveillance equipment. Disc brakes were also fitted and the spare wheel was repositioned to the front bumper. The battery box was relocated from under the passenger seat to a position between the driver and passenger. To reduce weight over the rear axle, the rear fuel tank was removed and replaced with side tanks, both of which are filled from the sides of the vehicle.



Extra rear wheels
require dramatic,
if crude, wheelarch
extensions



EX - NZDF DEFENDER

The issues the NZDF found itself grappling with were the consequences of the significant increase in weight when fully loaded, and the raising of the vehicle's centre of gravity. Both had a dramatic and unfortunate effect on handling and, in particular, the vehicle's ability to operate safely on rough terrain. What were described as 'anti-sway' bars in the instruction manual were fitted to the rear axle in order to 'instil operator confidence', and this anti-roll bar installation also incorporated a 'Ride Rite Air Helper Spring System' which allowed the operator to adjust the ride height dependant on the load being carried. Gas-filled KYB shock absorbers were fitted to both axles to reduce spring oscillations and right-hand rear springs were fitted to the rear axle.

Perhaps the most dramatic and obvious modification was the addition of tandem wheels on the rear axle. The rear wheel studs were removed and replaced with a 13mm extended stud to accept the cotton-reel dual wheel adaptors, giving the vehicle a very distinctive look, especially when the bespoke rear mudguards are fitted to accommodate the twin-wheel installation.

The NZDF started to dispose of its Stage 1 fleet in the late 1990s as the Pinzgauers and Nissan Navaras that were to replace them came on stream. Auctions of hundreds of vehicles and vast spares stocks were commonplace for a number of years, and the four Electronic Warfare conversions were apparently among the last to be sold.

There is a dedicated ex-NZ military Stage 1 enthusiast community in New Zealand with a very impressive social media presence and an excellent archive resource of New Zealand military instruction manuals, operators' handbooks and servicing guides. Alex Smith, who set up the Facebook group and has carried out a great deal of research on the vehicles, believes that all four of the Electronic Warfare vehicles were sold at the same auction in Christchurch, possibly in 2006.

The NZDF Stage 1s were issued with serial numbers when they were assembled by the New Zealand Motor Corporation, and the standard vehicle that was acquired for the Dunsfold Collection in 2020 is serial number NZ560. As he was researching the history of this vehicle, Dunsfold's Philip Bashall became more and more intrigued by the Electronic



Height-adjustable air springs fitted to mitigate a large increase in vehicle weight



Dual rear wheels fitted to help cope with the weight of electronic warfare equipment – they also give the vehicle an aggressively purposeful look from the rear



Neat cotton-reel spacer allows fitment of additional rear wheels



Anti-roll bars attend to some wayward handling characteristics

Warfare variant, and a vague idea of trying to find one began to take shape.

Helpfully, the NZDF instruction manual lists the serial numbers of the four vehicles that were converted, not that anyone is likely to go to the trouble of creating a replica. The four were NZ002, NZ271, NZ377 and NZ408, and when NZ408 appeared for sale on the New Zealand online auction site trademe.co.nz in January this year, Philip didn't hesitate for a second.

"I contacted owner Sam Johnstone immediately," says Philip. "He lives in Waimate, South Island, and was able to send me some photographs of the truck. I explained that I wanted to bring the vehicle to the UK for the Collection, and he was delighted with the idea. The first obstacle quickly revealed itself when I tried to place a bid for the vehicle on the trademe.co.nz site. I was rejected and could not find a way to register as a bidder. Sam was under the impression that overseas bidders were permitted on the site, but when I eventually managed to contact someone at trademe.co.nz I was told that only bidders in New Zealand and Australia are permitted. Globalisation has clearly passed them by..."

"A workaround was quickly put in place and the Collection was very soon the new owner of NZ408. The second challenge came when I started to look into the shipping arrangements. International shipping costs have increased massively since the pandemic. Initially I was looking at roll-on/roll-off because it was supposed to be cheaper, but in the end that proved too difficult, and I went for a container. The tandem wheels and mudguards had to be removed in order to squeeze the vehicle into a standard container, but once I'd recovered from the shock of the shipping costs the rest was, as they say, plain sailing."

Serial number NZ408 has chassis number SALLBCAV1AF558576 and is believed to have been assembled at the Nelson plant in late 1985. It was originally fitted with non-detox V8 engine number 10G09796 and its New Zealand Defence Force registration number was MM979. Sadly, no documents regarding its military service history seem to have survived. Hopefully a copy of the auction catalogue will turn up that will provide some basic information on the condition of NZ408 when it was cast.

There is what is assumed to be evidence of the 'upcycled' nature of the hardtop fitted during the Electronic Warfare conversion, because there are a number of old, peeling motorsport stickers still visible on the inside of the roof panel, including one for the 1990 Rothmans Rally of New Zealand. They were presumably applied by an enthusiastic owner to the roof of his civilian 109-inch, which at some point must have ended up in a scrapyard before it donated its roof to the Electronic Warfare conversion of NZ408.

Philip would love to be able to refit some of the electronic warfare equipment but needless to say that prospect is highly unlikely. This fascinating vehicle is the only one of its kind outside New Zealand and is a very worthy addition to the Dunsfold Collection.



Previous owner Sam Johnstone and family say goodbye before vehicle shipped to the UK



On arrival at Dunsfold



Recycled roof bears the signs of its pre-military life