

## The "VK4ADC" Family Caravan

September 2012

A few people have asked about my oblique references to 'refurbishing' an old caravan so here are a few details and photos...

The basic van : It's an old Windsor 'Windcheater' from the mid-late 1980's, 16'6" or about 5 metres long in the body, aluminium skin, steel chassis rails, wooden (meranti) framing inside the panelling. Single axle, double-sized island bed, kitchen etc - and certainly no toilet, shower or laundry facilities.

When I bought it, I was caught unawares of the "leaks" that occur in caravans (as a first-time buyer/owner of one) so when I investigated some damp panelling - and found it 'mushy' - then explored that matter further. The more I explored, the worse it got and I realised that it would need extensive remedial work. I ended up removing all of the lower part of the panelling at the rear of the van and found the frame rotted - and some still wet from recent rain. I replaced the wooden framing, polyurethane-d this time, and then installed new panelling. This may sound like an easy job except that some of this work was carried out inside of the existing cupboard framing. I added 12V wiring to allow fitting of a LED bedlamp on each side while the work was in progress.

The timber panelling in the kitchen area side wall also showed signs of deterioration so it was removed, parts of that framing replaced and new panelling fitted there.

I had to remove the bed frame to do this rear-area wood work so also made some changes to the height of the bed frame while it was out : raised it's height so that the typical 50L plastic storage boxes would fit underneath (by cutting the existing steel tube, adding extension sleeves and re-welding) plus added hinges at the top end and a gas/pneumatic lift on each side.

We took the van for an initial try-out for 3 days at Dicky Beach, Caloundra, so that we could confirm how the supplied annex went up plus determine any other remedial work still required. A sizeable 'to-do' list ensued...

The day after we returned, I started pulling the kitchen apart - the benchtop was chipboard and it was falling apart over in the corner due to moisture. All that was left of the original kitchen was the cupboard framing so I set about rebuilding that area, incorporating a 2-basket under-shelf roll-out cupboard at the same time (wife's request). The new laminate on the new benchtop meant that the table had to be re-done also - and since it was chipboard too, that meant a whole new table top. And so on... The result was that the refurbished caravan has minimal structural issues, no water leaks (ain't silicon sealants wonderful), and a number of improvements.

Of course there was a need to provide for my AR activities too so the pipe mount on the front drawbar was included, a 1.8m long removable pipe added and a 5/16" antenna base arrangement for whips provided. What used to be a 300-ohm ribbon TV antenna feed socket on the outside wall is now a BNC female via foam RG58-style coax to a BNC plug in the 'sofa' area.

There is also another BNC female connector mounted under the floor (actually, it is through the floor) with a second BNC-terminated RG58 lead running into the same area. The van's internal 12V battery is fitted under the sofa seat so a 6-pin Icom-style power lead is connected to it as well.

The van then went to the beach for 10 days, Pottsville Beach actually, in northern NSW. All went well, no major problems were encountered with the van or it's setup. I had added a couple of 1.8m long aluminium tubes to fit as radials for this outing and made SWR measurements before and after their fitting : wow, what an improvement. Needless to say, they will be fitted from now on ! Whilst not proposed for field day activities, more for family holidays, the selection of whips along for the ride allows for portable operation on the 3.5, 7, 10, 14, 21, 28, 50, 146 and 439 MHz bands. The Icom IC-706MK2G plus Z100 auto ATU and a small DSE switched mode 12V 20A power supply all strapped together make for a small AR station to take along on holidays.. PS : The still-to-do list from that trip was quite short.

I guess the best part of it was that I was able to do the whole range of tasks myself. The planning, carpentry, welding, wiring, painting skills etc all came to the fore as required to re-build the various areas. New skills learned included routing clean edges on laminate furniture - something I had never done before. One of the side effects of this refurb project was that my 5.7GHz and 10GHz microwave transverter project / development stalled completely., and no new projects in other areas were completed and written up as web articles etc..

As of mid-September 2012, that 'to-do' list is finished. Let's see what updates come out of our next 'away' trip.



The van almost at it's present state. There have been a few more external mods made that are just to make 'vanning' life easier.... You wouldn't see them in a photo anyway.



The initial trial setup at Dicky Beach. This was my first annex set-up experience. Tents and camper trailers yes, caravan annexes - no. We sorted out what went where, got it up, and all without instructions. (It's a male thing..)



The van on site at Pottsville Beach, NSW, for a 10 day stay.



Of course, it wouldn't be a 'VK4ADC' caravan without some antennas - in this case, a homebrew LPY-style TV antenna with 3 elements for 180 to 230 MHz (VHF digital channels) and another 3 elements for 530 to 690 MHz (UHF digital channels) plus a pipe mount for 5/16"-based whips for the amateur frequencies. The two 1.8m-long aluminium tube radials are insulated from the van's frame - without them, the SWR is horrible on 6m and 2m. With them in place, it is < 2:1 on both bands. Strange what a difference an almost-groundplane makes ???

There will be a few more photos added over time as I think them relevant. Maybe !