

M113A1 APC UPARMOURING

In Vietnam, in 1969, the Australian Army's main personnel carrier was the tracked M113A1, made by the US FMC Corporation. Reliable and amphibious, the M113A1 was vulnerable to the most common enemy anti-vehicle mine (which would today be ineptly described as an Improvised Explosive Device or IED) being a 20 litre drum filled with Ammonium Nitrate and Diesel Fuel. This mine would take the rear axle from a truck, or penetrate the sponson (plate above the track) armour of an M113, showering the crew with fragments.

ADEME Lt Col W.I.N.S Hicks-Hall asked OC 106 Field Workshop RAEME, Maj C.V.L. Palmer, to find a way to reduce the failure of that sponson armour plate. After inspection of a number of M113 casualties, 106 designed and fabricated pilot model applique kits from 5083 Aluminium Alloy. Comd. 1 ATF, Brig C.M.I. (Sandy) Pearson gave approval to use recovered mines, and damaged, but up armoured, hulls, for test firings. These firings, held at Nui Dat weapons range on 5 July 1969, proved that a single fabricated plate offered protection against the 20 litre drum mine.

Brig Pearson attended the firings, observing from one of 106's Fitters' M113. As he was offered the mandatory steel helmet, he expressed to Claude Palmer his concern that the safety distance might have been less than desired. Claude, a Royal Military College Science graduate, assured Sandy that the distance was safe. But sure enough, at one test, a link of M113 track was seen to be blown upwards and with a trajectory in the direction of the Fitters' M113! The link landed with a resounding thud about two meters from the Fitters' M113! Sandy just looked at Claude, and then proceeded down range to inspect the test vehicle. The success of the up armouring offset any further comment than: "Well done, 106. When can you up armour our fleet of M113s?"

A production version of the 106 design was accepted as an approved modification for all Australian M113s. In the meantime, a priority programme to up armour all M113s in the Task Force was conducted by 106 and 102 Field Workshops.

But the story continues to 1974. The Royal Military College Selection Board for 1974 comprised Brig David Butler, Col Peter Gratton, LtCol John Affleck, and LtCol C.V.L. Palmer. Meeting in Sydney, they were unable to be quartered at the Victoria Barracks Mess, so were accommodated in an apartment block in Macleay Street, Kings Cross. Locals have a myth that, if one waits long enough at the nearby El Alamein fountain, one will see all one's friends pass!

One evening, the Selection Board had adjourned for dinner, and was walking South along Macleay Street opposite the El Alamein fountain, a well-dressed man came out of the passing crowd and said to Claude: "I know you; your unit fitted that anti-mine kit to my APC in Vietnam". He shook Claude's hand firmly, saying: "I've wanted to thank you personally for years. Soon after your boys (106 Workshop) up armoured my APC, it hit a mine. Thanks to your work, my mates and I survived!"