

547 SIGNAL TROOP CALLSIGN 85D (SIGINT)¹

ARMoured COMMAND VEHICLE

The solution of courtering SIGINT forward by a 547 Sig Tp officer, normally by helicopter, with classified papers and a thermite grenade, became a problem, following an incident with 9 Squadron RAAF, in early 1969. It became evident that the carriage of classified information by helicopter to any forward base introduced operational and security difficulties!

The OC, 547 Sig Tp, Major Steve Hart, was confronted with a requirement for a new way to get classified SIGINT timely to the SO2 (Int), when he was deployed with the Commander at HQ 1 ATF Main.

The solution was to use a channel on the RR and terminate it on a Telegraph circuit protected with KW-7 equipment using exclusive cipher keys, all installed in an ACV for the exclusive use of the SO2 (Int). 547 Sig Tp manned the equipment at both ends and this also allowed the unit to deploy operators forward to monitor enemy transmissions from the FSPB.

Until the ACV Callsign 85D materialised in late April 1969, 547 Signal Troop did get an immediate loan of a M113 from the Cavalry Squadron as an interim solution.

Garth Brown gives an overview of how the ACV was used;

When we initially started to deploy to FSPBs using Callsign 85D we were totally reliant on 110 Sig Sqn and their AN/MRC-69 equipment to provide the radio bearer path for our telegraph traffic between the FSPB and the 547 Sig Tp Comcen at Nui Dat.

This was a totally unsatisfactory arrangement because the radio bearer had frequent outages, and when it was up, the signal was so marginal that we continually ended up with corrupted (read unusable) traffic which had to be re-sent; re-sent; re-sent. This to a degree negated the real time value of having SIGINT Operators on the ground at the FSPB.

The advent of the ACV gave us the opportunity to look at an alternative radio bearer path which, hopefully, would be both easy to transport into site and easy to set up. Because most of our TAOR was reasonably flat and generally suitable for VHF line of sight from FSPB to HQ 1ATF Rear, John Harding and myself decided to explore the viability of utilizing the RT-524/VRC transceiver as our bearer. We knew that the transceiver itself was a robust and extremely reliable unit but we had some concerns that it may not handle a higher transmission ratio above the normal 1 – 10 transmit – receive cycle.

It turned out that the RT-524/VRC was perfect for the task. After a lot of trial and error we came up with a standard ACV fit-out comprising Kleinschmit teleprinters connected to TSEC/KW-7 crypto gear (mounted on incendiary slabs) which was connected via a

¹ Extract from: <http://pronto.au104.org/index.html>

TA-182/U tone converter and TH-5/TG FSK unit to the RT-524/VRC transceiver, which itself was connected to a RC-292 antenna. It was all standard equipment except for a resistive attenuation pad we had to knock-up to match the TH-5/TG output to the RT-524/VRC input. We used the same setup at the Nui Dat end with the RC-292 antenna mounted on top of the 72ft DECO mast.

We also installed HF equipment in the ACV for intercept tasks. These were Racal RA-329 units which comprised a Racal RA-217D HF receiver and Racal MA323 FSK unit mounted in a “ruggedised” casing.

When the ACV deployed, it also took a 10KVA generator and 16 jerry cans of fuel. This made for a decidedly uncomfortable trip for the troopies who were conveyed out to the FSPB on the ACV because the jerry cans had to be stowed on top of the ACV and the troopies had to ride outside the ACV perched on top of the jerry cans – that certainly increased the “pucker factor” by a few degrees.

In summary, notwithstanding the necessity for the Cav crew to drive the ACV, 547 Sig Tp was able to deploy a totally independent sub unit which was able to sustain intercept operations in the FSPB environment while maintaining (most of the time) ZBZ5 secure telegraph traffic back to base. Another good example of the Troop’s collective ingenuity serving to get the task done.

Up until I left in Aug '70, I know we lobbied to have some 547 members trained to drive the ACV (even if only in Nui Dat) but unfortunately it never happened – we were allowed to power it up – and drop the ramp – but we weren’t allowed to move it.



Callsign 85D dug-in on FSPB Colorado - L-R John Pearson (A Sqn, 3 Cav), Harry Lock (547 Sig Tp), Des Williams (547 Sig Tp), Tony Luck (547 Sig Tp) and Bob Harland (547 Sig Tp) - January 1970.
Photo supplied Bob Harland

Bob Harland remembers the OC, 547 Sig Tp became very concerned for their welfare when the SIGINT operators and Callsign 85D went missing after the convoy they were travelling in from FSPB Picton came under enemy fire;

“On the 8 December 1969, we are all of a sudden "missing" - bit hard to 'miss', but that's when the Boss found out what happened, and the orders were 'don't care how you do it, just get them out of there'-- OK for him, he didn't have to follow the only surviving Centurion in low low gear, trying to bask it's way through the boonies, with all us dickheads sitting on top of it --- never was fond of that rule !!!”

The 547 Sig Tp members and their ACV made it out safely but sadly two Australians were KIA and two WIA in the convoy mine ambush with an APC (Callsign 23A) heavily damaged. Also a Helicopter attempting to land to effect dustoff of the injured, detonated another mine resulting in another WIA and a badly damage Huey.

It should be noted that the vehicle generator was petrol and all the jerry cans were full of it. The last thing you want on top of a vehicle with or without troops, particularly when the floor of the vehicle is an aluminum/magnesium alloy!

In the Nui Dat pull out, the new site for 547 Sig Tp, at Vung Tau, was ready on the 1 October 1971 and only the rear party remained at Nui Dat, which included the ACV. Only the ACV and two operators remained after the 7 October with Callsign 85D leaving Nui Dat for the last time on the 16 October 1971. Lt Ian Bowen and Peter Dencher plus their Cav Sqn driver were the last HQ 1 ATF vehicle to leave.



Callsign 85D dug-in at FSPB Colorado - January 1970.
Note the underground work area behind the ACV.