The Minefield

For John Power and David Vivian Smith

‘Landmines may be concisely defined as mass-produced, victim-operated, explosive traps.’
Mike Croll, The History of Landmines

This is a story of strategic self-destruction. At its centre is a minefield laid in Phuoc Tuy Province southern Vietnam by 1 Australian Task Force (1ATF) in May 1967. The purpose of the field, which 1ATF Commander Brigadier Stuart Graham described as a ‘barrier fence and minefield’, was to protect Vietnamese villages in Phuoc Tuy’s south-western Long Dat District from incursions by regular units from the People’s Army of Vietnam (PAVN) and the local National Liberation Front for the Southern Region (NLF). The ‘barrier’ also sought to cut those forces off from the supplies and recruits they obtained in those villages and from the support of the NLF’s irregular village guerilla units. To serve these purposes, the ‘barrier’ would run for eleven kilometres due south from the centre of the province through variegated terrain to the coast.

On 16 March 1967, bulldozers began stripping the tall blady grass and banana trees from the red loam around the village of Dat Do,
and the infantry erected two parallel belts of barbed wire 100 metres apart. Each wire belt was 1.82 metres high by 1.82 metres wide and ran through the boggy Ba Dap and Ong H em depressions to the sandy terrain and dunes on the coast. This was 'the fence'. In the 100-metre interval between the belts, the sappers of 1 Field Squadron Royal Australian Engineers laid over 21,000 US M16 Jumping Jack mines. Over half of these were fitted with anti-lifting devices to deter any enemy who might attempt to breach the field. About one in four of the mines was fitted with trip wires, which provided an alternative means of detonation. This was 'the minefield'.

The M16 mine is about the size of a large jam tin, about ten centimetres in diameter and twelve centimetres high, or nineteen centimetres with the M605 fuze installed. With steel inner and outer casings, the mine weighs over three and a half kilograms including about half a kilogram of TNT. To prime this ordnance, an M605 fuze (or striker) with three prongs at the top is screwed into a well in the centre of the mine. To arm the ordnance, the safety pin, which prevents the fuze from being driven home in the fuze assembly, has to be withdrawn from a hole in the neck of the fuze. The mine detonates when a small downward force is applied to the prongs – or there is a similar pull on a trip wire attached to the release pin located below the safety pin in the neck of the fuze.

A plate moves across the igniter mechanism and frees the firing pin through a hole in the plate. Driven downwards by a spring, the freed firing pin strikes a cap which ignites a two-second delay fuze. This delay fuze ignites a flash cap, which burns through a thin metal disc at the bottom of the fuze well. The burning action further ignites a bag of black powder, which throws the mine out of the ground with great force, simultaneously igniting a two-millisecond delay fuze. This fuze detonates the half-kilogram of TNT when the mine is at knee to waist height – hence 'Jumping J acks'. The mine was usually lethal within a 25-metre radius, was known to have killed at 75, and was dangerous to 200 metres.

The mine laying 'choreography' required strict organisation as the many carrying, digging and arming parties moved around the work site like clockwork, laying thousands of precise clusters, rows and
strips. Just keeping control of the rubbish from all the mine boxes was a serious business. The fierce heat and enemy action provided further distractions. Local guerillas ambushed the route to the mine head on one occasion. More frequently they – and their children - pushed buffalos and dogs into the minefield to distract the arming parties from their dangerous work. A momentary lapse in concentration in the task of arming or moving around armed clusters could spell disaster. Snipers were posted to shoot the dogs.

There was also the pressure of time. The brigadier wanted the minefield laid by June to prevent the rice harvest in the south-western plains from getting out to enemy forces in the east. There was no time to rehearse laying drills with the powerful ordnance, even though it was new to the sappers. Graham’s plan required a laying rate of a thousand mines a day. At least initially this was an unrealistic daily quota for the available engineers – a field troop of thirty to forty men. Something had to give. And it did. Five sappers were killed and six wounded, some heavily, while laying the mines by the time the operation was terminated on 30 May.

Jethro Thompson was heavily wounded. He had been having a break from arming the mines and remembers one of the ‘hurry-ups’ that kept coming down the line. This may have unsettled him, because as he moved back into the field to resume work he almost certainly stepped on an armed mine:

I remember the fatal morning, 9 May... [After the break] I went back to the end of the armed mine area to where we’d laid out our flak jackets so the sun would dry the perspiration before [we put them on again]...I was standing there adjusting my jacket and looking at my partner Ashley Culkin crouching over a mine in the ground. I thought, ‘O shit, he’s already into it’. And that’s the last thing I remember seeing before I was flying through the air. All the dust and crap seemed to float down covering me in very slow motion. My hands were spewing blood and I could not feel my left leg; actually it felt as if it was hanging over an edge, dangling. Many guys came over and started to assist the wounded, four of us were on the ground and several others had received shrapnel wounds. Ashley was badly lacerated and had vision problems. Ray Deed suffered a fatal wound in the throat and died.
that night. Dennis Brooks received wounds to his leg, which he might have
lost if he’d survived. I believe he died in hospital a few weeks later. I got hit
from left to right, shreds at the high thigh only attached my leg. My dick is
longer than my left leg and I’m not boasting. My left hand was a mess. Lost
all but the thumb and index finger. My right wrist had been badly gouged.
My buttocks and right leg was badly lacerated. Left eardrum was perforated.
I took a penetrating abdominal wound at the base of the flak jacket. This
opened me up exposing my intestines. I heard someone yelling out to put
the pins back in the mines near us. Then one bloke said, ‘We can’t, Jethro’s
got them’. [Sergeant] Brett Nolen was hovering over me trying to stop the
flow of blood. I was hot and looking into the sun.

The devices which Brigadier Graham hoped would prevent the
enemy from lifting the mines, added greatly to the danger of laying the
mines fitted with them. Each anti-lifting device incorporated an M 5
pressure release switch with a sensitive hair-trigger mechanism that
was very risky to set. The switch was about the size of a matchbox, and
was fitted with a detonator adaptor and screwed into the top of an M 26
fragmentation grenade.

To install this device the mine hole was dug to a depth of about
forty-five centimetres, about fifteen centimetres deeper than if the M 16
mine was to be laid without the device. The base of the grenade was
placed on a small square of three-ply in the bottom of the hole. The
base of the M 16 mine was then positioned on the top surface of the
switch – its spring-loaded hinged lid. With the mine held in place and
its weight holding down the spring-loaded hinged lid, two safety pins,
which prevented the lid from springing open and triggering the anti-
lifting device in the absence of an external weight, were then removed
with great care. The soil was tamped back around the ensemble, and
the safety pin finally pulled from the fuze in the neck of the mine. If
someone attempted to lift the mine, the lid would fly open releasing
the firing pin and detonating the grenade – and the mine – in the face
of the prospective lifter.

This was the device that very likely killed two more sappers,
Greg Brady and John O’Hara, during the laying on 20 May. One of the
NCOs who happened to notice their last movements, thought that something went wrong when the two placed the bottom of the M16 mine on the top of the M5 pressure release switch. Perhaps an involuntary jerk of the hand caused by fear, a bead of sweat, or a fly. Perhaps some dirt got between the bottom of the mine and the top of the switch during the tamping. Whatever the reason, the rock-solid alignment between mine and switch could not have been maintained. The lid seems to have flipped open causing the grenade and mine to detonate, killing the men hunched over the hole. Corporal Graeme Leach survived the incident:

The mine went off to my left rear. Both of my teams had mines in the ground and still unsafe. It was from here that I can only put a few things in place. Screaming at my boys and talking them through to make safe their work. Once done I took them from the field bearing in mind all the mines behind were armed and concealed. Sappers Greg Brady and John O’Hara were killed instantly. Lionel Rendalls and Brian Roberts were both on the centre line and knocked down and out with the explosion. The other man was Neil Worboys who was still at his armed mine site and tidying up around it to finish the concealment. He was unharmed physically.

The discipline of the sappers was remarkable. Leach told his boys to make safe their work before leading them in an orderly fashion out of the field.

But the tragedy of the decision to secure the mines with anti-lifting devices had barely begun with the deaths of Sappers Brady and O’Hara. Graham’s engineer adviser, Major Brian Florence, had advised him that the minefield could not be adequately protected unless it was covered with observation and interlocking arcs of small arms fire for its entire length by troops installed in suitable posts. Graham’s infantry commanders also warned him: without such protection anti-lifting devices were not going to stop a determined enemy from breaching the field and lifting the mines.

After some thirty prospective enemy lifters were blown to pieces during suicidal mine-lifting experimentation in the minefield, the local guerillas found a way to neutralise the devices before the laying
was complete on 30 May. One former NLF cadre Nguyen Tu Giai explained what happened. At first people trying to lift the mines ‘were being killed all the time’:

we had no idea why the mines kept exploding as they were being lifted, because the mine exploded at the same time as the grenade underneath exploded. We had no idea what was causing them to explode. And it was being done at night, not during the day when we could look and see. But what luck! This comrade lifted the mine and the grenade beneath it was a dud, and he lifted both. Everyone was informed of this.

The oral and written histories of Long Dat District all recount the story of how a combat engineer named Hung Manh – Hero Manh – had an unexpected reprieve after being ceremoniously sent off (with drinks) on a likely suicide mission to the minefield. The crucial detail: ‘the grenade beneath the mine did not detonate because it was damp.’ The mechanism of the anti-lifting device was thus revealed. Mine lifting training was soon devised for local guerrillas and many others in the villages. The mine lifting had begun by the night of 28 May when Australian records show that M16 mines, some of them with devices, were lifted from the outer edge of the minefield almost a kilometre north of Lo Gom in the southern sandy part of the field. Laying was terminated – aborted – the following day after another sapper, Terry Renshaw, was killed and several wounded, possibly as a result of faulty ordnance during the laying.

From then on, 1ATF’s lightly armed guerilla enemy was able to turn the minefield into an inexhaustible supply of mines – and M26 grenades and M5 pressure release switches – to defend their vital area and population against 1ATF. The people in the villages around the minefield referred to it as the ‘kho tàng vũ khí’ – ‘the arsenal’. So did the Australian soldiers.

Why did Brigadier Graham, who was widely regarded as one of the most talented officers of his generation, proceed with such a disastrous course of action, in the face of warnings from his subordinates? Stated baldly, because his colonial construction of Vietnamese affairs meant he
had no clear idea of who or where his enemy was.

No artefact of Australian defence culture expresses its colonial construction with more bullish naivety than a 1991 essay on 'Vietnam, Anzac and the Veteran' by official historian Professor Jeffrey Grey. ‘Australia,’ Grey writes, is ‘an outpost of Anglo-Saxon culture whose capital was once London and is now Washington.’ ‘Australia,’ he goes on, ‘has always been susceptible to the cultural and informational products of the dominant anglophone society.’ The words may be unlovely; but they do provide insight into the sub-imperial ethos of the general staff of the ‘outpost’ that orchestrated Australia’s involvement in the Vietnam War.

Graham’s Australian superiors in the minefield saga, Generals Sir John Wilton and Sir Thomas Daly, had indeed cut their teeth as young officers in the British Raj in India and Burma. Both had served in the Australian Imperial Forces in the Second World War and gone on to distinguish themselves in Korea before rising to the pinnacle of the Australian Army. Both, especially Wilton, had great faith in the power of US technology.

Born in 1920 in Ulmarra, New South Wales, Graham was ten years younger than Wilton and missed the Raj. But his career was also set in the ideological imperatives of British imperial decline. He had served in the Second Australian Imperial Force both in North Africa and the Pacific, winning a Military Cross fighting against the Japanese. With a reputation for intellectual brilliance and stubborn tenacity, his career later took him into Cold War intelligence in the United States. In 1957 he was posted to Washington as Intelligence Officer to the Australian Military Mission. In 1959 he was back in Canberra in the Directorate of Military Operations and Plans and well placed to spread American influence in the Army as British power in the region waned. As the Army’s Director of Military Intelligence (DMI) in 1960–1964, his political views were no secret. ‘Communism is evil! Communism is bad!’ he was heard to shriek in the office of the DMI while interrogating a military person on his views in the early 1960s. ‘You are a serving officer and you have no right to think anything else!’ Any view of political change in Asia that did not reveal an intense ideological rejection of communism was morally inadmissible.
For anyone who did well in the military bureaucracy in the period, acceptance of the 'domino theory' was also a wise career choice. According to this doctrine, something had to be done or the countries of South-East Asia and, ultimately, Australia would fall one by one to the downward thrust of the Asiatic dominions of international communism. And the relevance of this notion to the construction of Graham's strategic assumptions was reflexive: if one believed the communists were 'coming down', the construction of barrier defences to prevent such a thrust was the obvious response. The term 'barrier' was indeed embedded in the language of Australia's key international treaty arrangements in the period, the Australia, New Zealand, United States Treaty (1950) and the South-East Asia Treaty Organisation (1954). Yet this barrier reflex played on a fatal blind spot in the calculations of strategic policy makers: there was no communist power in the region capable of invading South-East Asia, let alone Australia.

The Australian Chiefs of Staff Strategic Appreciation of 1950 even said so. Looking forward to 'the next ten years', this major appraisal informed the government that 'neither the Soviet, nor the Chinese communists are likely to be able to mount a seaborne invasion of Australia.' The problem of Indonesia,' it added, 'is internal, there being no immediate threat of external aggression.' A slight revision of this assessment in 1964 saw some possibility of Indonesia being 'the only direct threat to Australia and its territories'. But Indonesia's capacity to attack Australia was still negligible. Nor was there any sign of a Vietnamese Pacific armada. In fact, the domino theory's construction of the communist menace was conceived along exactly the same lines as the Japanese expansion that toppled the British garrison at Singapore and most Western colonial governments in Asia by mid-1942. The Australian government's strident anti-communist rhetoric in the 1950s and 1960s turns out to have been a surrogate assertion of the fear generated by the process that Japanese expansion had formerly set in train in Asia: decolonisation.

A major political complexity arose. Government officials were unable to say what they feared most at a time when the process of decolonisation was sweeping the world. Marinaded in the technicolour nightmare of the 'red' and 'yellow' perils, many officials did not even
know what they feared most. For Graham and his superiors in Canberra, where a powerful political bias determined the perceived threat of communism, communism was the enemy, not nationalism, which was the real threat. Graham and his colleagues were never officially informed that, by encouraging US intervention in Vietnam, the role of their small task force in Phuoc Tuy Province was to suppress independent Asian nationalism.

Once Graham got the prestigious appointment of Commander 1ATF, the main components of the military problem as he saw it on the battlefield were thus colonial constructions. First there was the location of the task force base at Nui Dat. When Wilton approved the location of the base in March 1966, he believed that it would provide a ‘visible and physical barrier’ between the main PAVN/NLF forces in the jungle to the north and east of the province, and the population in the open plains of the south-west. It was commonly said around the base that it acted as a ‘barrier’ that ‘blocked the northern approaches to the centres of population’ in Long Dat District. Yet this barrier assumption made no strategic sense. Blithely unaware that most southern Vietnamese might have had different historical and political views from his, Wilton assumed that the population of Long Dat largely supported the local Saigon government ‘administration’. He did not realise that the people he was trying to protect in the south-western district were the source of the NLF forces, and the effective supporters of the PAVN units in the province as a whole.

With 54 per cent of the population of the province concentrated in the villages around its best rice fields, Long Dat was the district to control if one wanted to have a significant political-military impact in Phuoc Tuy. The 1986 Vietnamese History of the Revolutionary Struggle in Long Dat District provides the authoritative strategic formulation: ‘to maintain the Long Dat area along with the Minh Dam Base [in the Long Hai Mountains], was to maintain the revolutionary movement of the province.’ For the NLF, maintaining Long Dat District would mean retaining in the face of counter-revolutionary (Australian) pressure the support of the population around the rice-growing plains. Integrated with this requirement was the existence of the district’s key Minh Dam guerilla base area in the Long Hai Mountains, which ran
along the western rim of those plains. Ongoing mobilisation of the vital population through guerilla activities in the villages would require relatively secure guerilla base areas - which could not have existed in the mountains without prior popular support from the plains.

Wilton had missed all this. Far from being ‘the complete master of his brief’, as his biographer David Horner presents the romantic cliché, Wilton did not know what he was doing. Blinded by his imperial perspective, which suggested that a few well-organised ‘Vietnamese Communist’ or ‘VC cadres’ had ‘infiltrated’ and imposed their menacing political will on the population - there was no discussion of how the cadres survived in the villages - Wilton had made a stunning strategic error. This was to position 1ATF to protect the very people in Long Dat who were his enemy. The strategic incoherence of 1ATF history would follow.

The military force available to Graham was also a colonial construct. Because the Australian population perceived no threat to its national security its army was small - some 30 000 troops. As a result, the government could only provide Graham with a small unbalanced task force of two lightly armed battalions, which left him without the strength to deal with the complex array of military problems that were the consequence of 1ATF’s half-baked presence in the province. He did not have the troops to manoeuvre and destroy the regular enemy main force units that kept moving around the province, both to keep pressure on the Nui Dat base and to stimulate guerilla activity around the key villages of Long Dat, while also obtaining recruits and logistics support from them. With no official statement of 1ATF’s political role, or indeed any clear instructions from Canberra, Graham thought he had a war to win. He therefore decided to compensate for his lack of troops by building the ‘barrier fence and minefield’ to cut the enemy’s main forces off from their logistics support in the villages, thus leaving those forces to wither on the vine.

This decision was again a colonial construct: Graham largely modelled his ‘barrier’ on the Morice line, a 300-kilometre long barrier fence and minefield that the French constructed along the Algerian-Tunisian border in 1957 to prevent Algerian independence forces
resting and refurbishing in Tunisia. Yet the Morice line ran through a desert. There were few population centres on either side and it could be well covered by observation from the air and by vehicle patrols backed by large mobile infantry ready reaction forces. In Vietnam, none of these conditions applied. The concept of a ‘barrier minefield’ immediately raised the question of where the troops were going to be found to protect the minefield that was to be laid because there were insufficient Australian troops in the first place. The fact that the NLF had widespread support in the villages beside the minefield only underlined that problem.

Over the years many have sought to apologise for Graham’s decision, by indulging the he-good-naturedly-relied-on-the-allied-Vietnamese-to-protect-the-minefield-but-they-dropped-the-ball mantra. At some point, Graham did seem to think that the use of allied Vietnamese forces to protect the minefield would be his masterstroke. There were discussions with local Saigon Government authorities. But Graham’s own intelligence reported that the local troops were ‘completely ineffective’. Graham’s use of the ‘the new anti-lifting devices’, which Florence warned him against using, were also an indication that he was not entirely sure himself whether those troops could or would do the job.

The then Chief of the General Staff, General Daly, did not perceive the situation with any greater objectivity than Wilton or Graham. He knew about the decision to build the minefield before it was implemented, but did nothing to veto its construction. Graham was left to make a strategic error that had no tactical solution: not only were local villagers always going to destroy the minefield, no friendly forces were ever going to protect it. The architects of the minefield had drawn up their plans in Plato’s cave. Unable to see beyond their colonial enclosure, Graham and his superiors were staring at their own reflections.

M16 mines from the Australian minefield began to come into the NLF’s Long Dat District Committee in considerable numbers – as many as 2000 – in August and September 1967. The Long Dat historians suggest the excitement this caused in the villages by emphasising
the supply of M16s and other ordnance from the minefield that was on offer after the 'mine-lifting emulation movements' began to sweep the district. They record with amazement, and only moderate hyperbole, the 'almost 70,000' M16s, fuzes, grenades, pressure release switches and trip-wires that were on offer. By 1968 the field had lost its original pattern and, even, form. It had been smudged all over the district; or, as a 1ATF engineer officer put it, the entire district had become a 'vast low density minefield'.

The political advantage this redeployment of minefield ordnance conferred on the NLF in Long Dat was devastating. For with all the mines being re-laid by local guerrillas - usually in clusters of three so that, with people running around in fear and panic after an initial detonation, the other mines would be detonated and the horror spread - the danger for civilians moving through the district was great. Civilians therefore depended more than ever for their safety on being integrated into an effective NLF mine-management regime.

The evolution of such a regime seems to have been more or less spontaneous, if somewhat haphazard. As a fifteen-year-old girl, Mac Linh Xuan was an NLF courier and mine guide who often crossed the 1ATF minefield and other mined areas from 1967. In a 2005 interview she recalled that

if the villagers were using a new area and they wanted to attend a meeting, they all needed guides... In special circumstances you also had to have someone from a unit or committee as a guide. It was very dangerous, because the lifted mines... were not laid... where you knew where they were by looking; they were all over the place... So that to go anywhere you had to have a guide lead you. Nearly all the Cadres coming back in had to have us guide them in.

There were mines 'all over the place'. Yet it is also clear that the superabundance of M16s intensified the need for people to be inducted into local mine secrets. By 1969 Australian engineers would also say: 'The VC always mark their mines, particularly near the local population who are informed of the markers used in order that they may move in safety.' These markers might include crossed sticks, an arrangement of
stones, a log or a knot in a tuft of grass. People also had to accept guidance through areas they had formerly known like the backs of their hands. In any case, there is no doubt that life went on in the district and that therefore people were generally able to discriminate between mined and unmined areas. And the only way this could have happened was by people generally accepting and, even seeking, greater NLF control of their activities - which was the reverse of what Brigadier Graham imagined his 'barrier minefield' would achieve.

Enhanced popular support for the NLF strengthened its existing military advantage: there was even more comprehensive surveillance of the battlefield than before. Only with detailed information from buffalo herders, hunters, children, people in the fields or on the way to market, who were in turn inducted into local mine secrets, could guerilla units anticipate the movements of the Australian patrols and mine and re-mine the area accordingly. On this basis, the NLF could use the M16 mines to defend its vital assets in Phuoc Tuy Province, which were its population and guerilla bases, in Long Dat District.

This strategic goal included a requirement 'to defend the Minh Dam base' in the Long Hai Mountains and 'to attack the Australians and the [Saigon government] puppets' around the villages in the plains of Long Dat. This recent formulation by former NLF cadres is noteworthy because of its radical stress on the need for offensive as well as defensive mining. Accustomed to mining in abstract geometric patterns in fixed fenced and managed fields, offensive mining was new to Australians. It also brought into shocking realisation how completely 'the minefield' had armed the indigent lightly armed guerillas of Long Dat with nothing less than their number one attack weapons!

Between 1 August and 2 September 1967 four members of the Second Battalion of the Royal Australian Regiment (2RAR) were killed and nineteen dismembered and wounded on M16 mines set up to defend NLF camps in the vicinity of the minefield. These were almost certainly the first Australian casualties caused by mines lifted from the 'barrier' minefield. Operation Pinaroo (2 March - 15 April 1968), which 1ATF launched into the key NLF base area in the Long Hai
Mountains, provides an even more dramatic example of the NLF’s tactical use of M16 mines in a defensive mode and its impact on 1ATF patrols. In the initial manoeuvring in the foothills of the Long Hai Mountains leading up to the 19 March assault on their central massif, a defensive NLF mining and re-mining of track junctions, water sources and observation points in the path of observed 1ATF patrols had already inflicted casualties. But no patrol was more eventful than the one from 7 Platoon 3RAR that Second Lieutenant Lawrence Appelbee led into the mined defences of enemy base installations on top of the mountain.

During the week before the assault on the mountain by 3RAR, B52 air strikes and naval gunfire pounded the objective. These bombardments had virtually no impact on the countless caves in which the enemy had installed their rice stores, hospitals, weapons workshops, and armouries. But, still, it was into a shattered moonscape of fine dust and granite boulders that eighteen to twenty men from Appelbee’s platoon moved in single file after they left the C Company base at 9 a.m. on 22 March. The first 200 metres was easy going; two days had already been spent clearing every square inch with mine detectors and prodding much of it with bayonets and marking the cleared area with white tape. Yet the patrol had still only moved a further 200 metres along the track – a total of 400 metres from the base – when at around 12.30 p.m. Private John Richardson stepped over a log, which may have been an enemy mine marker, and detonated an M16 mine.

The mine failed to jump. It went off in the ground causing him to lose his left leg below the knee and the front of his right foot. He also suffered from a very painful burst eardrum, and compound fractures of both arms. Corporal Graham Fox, who was some metres behind Richardson, also suffered wounds that later resulted in the loss of a leg. Appelbee told his riflemen to get onto rocks and watch their arcs of fire. Sapper Murray Walker, who had been allocated to 7 Platoon that day, began to prod back no more than ten metres across the saddle with a bayonet to clear a ten-inch wide path to get to Richardson and Fox. Appelbee also prodded. At some point Private Kevin Coles, who was near the rear of the first section, moved off his rock. Appelbee told him
to stay where he was and then heard him say words that might have been ‘I know where I’m going’. Perhaps he intended to cover Appelbee and Walker in the saddle. But as the 1.35 p.m. entry in the Task Force Duty Officer’s Log states: ‘the protection shifted off the track and detonated a mine.’ Kevin Coles had stepped on an M16 that jumped. The mine instantly killed him, lightly wounded Appelbee, and blew Walker to the ground.

Once they had collected themselves and it was realised that nothing could be done for Coles, whose smouldering body later flickered into flames, Walker and Appelbee reached Richardson and Fox. Richardson was ashen but conscious and his response to his predicament was not uncommonly one that may be described as heroic embarrassment: ‘My first thought was, “God! I’ve stuffed up. Hurt someone else”’. Also typically, as other accounts of people in his position indicate, Richardson was instantly concerned about his genitals. On this score he need not have worried; on reaching Richardson and checking these out on request, Sapper Walker found that: ‘He was OK. He had the full orchestra and stalls.’ Fox’s main concern was that the blood group imprinted on his dog tags was wrong. Meantime, the burning body of Kevin Coles presented some danger because of the possibility that it might generate enough heat to detonate the grenades and ammunition attached to it. At some point, Walker, carrying a fire extinguisher that had been lowered from an RAAF Iroquois helicopter bravely crossed a stretch of uncleared ground to get to the burning body. Appelbee placed a tourniquet on Richardson’s torn leg. 3RAR Medical Officer Captain Richard Lippet also lowered himself and his medical kit into the area from a hovering helicopter to tend and organise the extraction of the wounded. His unorthodox method of descent was on a knotted rope, which was all the more remarkable for the fact that he had lost most of the fingers on his right hand from frostbite during an earlier adventure in the Antarctic. The Company Commander, Major Ian Hands, called out from the company base – the patrol was only 400 metres down the slope from it – that he would send two engineer reinforcements with an infantry escort from 9 Platoon to help Walker. Inexplicably, these four went around the left uncleared side, rather than the right, cleared side, of a big rock on the
path down the slope. One of the four detonated another M16 mine. Both of the escorts were seriously wounded and the two engineers killed. These were Sappers Vince Tobin and Geoffrey Coombs, who along with Walker had narrowly escaped death on a patrol a few weeks before. Hands managed the extraction of the four casualties nearest the company base. Appelbee, who was 'very pissed off' with a cameraman taking Super 8 footage of the carnage from the RAAF evacuation helicopter hovering above, ensured that the helicopter winched Richardson, Fox and Coles out from maximum height. This was because of the danger that the powerful down draught from its rotor blades would detonate more mines. Four hours after Richardson detonated the first mine the platoon got back in the base. As the survivors ate their field rations that night 'no one spoke.'

This gives some idea of the leadership, courage and staying power with which Australian patrols went on probing mined NLF defences for days and weeks on end – Appelbee's platoon went on patrolling the next day. But the same incident also gives some idea of how, with no heavy weapons and no air power, the guerilla forces of Long Dat District achieved the remarkable military feat of defending their key base area against 1ATF – with M16 mines that had come mainly from the Australians' own minefield.

Some examples of the NLF's radical use of M16 mines in an offensive mode and its impact on 1ATF patrols may be taken from the period between May and August 1969. This was when three 1ATF battalions and the engineers were involved in major pacification operations in and around the villages of Long Dat District. To appreciate the impact of M16 mines on these operations two points need to be made. First, the offensive use of mines implies their radical use as attack weapons – with something like the impact of artillery. Second, a fundamental precondition for using the mines in this way was wrap-around surveillance of 1ATF's activities; to attack a target with mines one has to know where it is or be able to anticipate its movements. When 9RAR went into Long Dat District in May it soon realised it was involved in a 'deliberate mine battle', which meant its activities were being closely observed. A number of its patrols hit mines around the villages where
engineer work sites were also mined. Considerable casualties were inflicted. But by 15 June, when 12 Platoon 5RAR was involved in a mine incident in Dat Do village, there were ominous indications of increasing refinement in the precision of NLF offensive mining methods.

The platoon was gutted when three of its men were killed and twenty-two wounded around 11 a.m. by an M16 mine that had been laid only fifty metres from a house inside the village. The placement of this mine so close to a house was new in Australian experience. But it strongly suggested advanced knowledge from double agents in the District Headquarters that the Australians would be moving into precisely that area. This was especially so when, in accordance with the protocols involved in cooperating with the local Saigon government authorities, 5RAR had dutifully informed the Dat Do District Headquarters of its moves some days before. At the very least, the many Australian casualties caused by M16 mines that had been planted adjacent to houses in a number of villages – Dat Do, Phuoc Loi and Lo Gom – showed what side the population tended to be on. The '1ATF Mine Warfare Booklet', which came off a task force gestetner in August 1969, drew the appropriate lessons: 'the enemy's training pamphlet stresses the need for villagers to know the location of the mines the enemy sets. Australian troops cannot count on the villagers to inform us of their presence.'

The tactic of drawing Australian patrols into mined areas was another of the NLF's offensive options. A roadblock might be set up and the area mined either side of it. On 7 July 1969, assassins killed the Deputy Security Chief of Hoi My and left his body on the road outside the village. The area around the body was mined. In late June 1969, local guerrilla forces engineered two contacts with 5RAR patrols in the foothills of the Long Hai Mountains. Knowing this was an enemy courier route, 5RAR reacted as their enemy anticipated they would. On 4 July a 7 Platoon night ambush patrol led by Second Lieutenant David Mead was moving to a position about 500 metres from the area. The patrol was still in the paddy fields at the base of the mountains when, at 9.07 p.m., one of its machine gunners placed his gun on an M16 mine. One member of the platoon was killed and many
others were wounded, including Mead who had serious shrapnel wounds in the back. A second mine was detonated at 10.05 p.m. after someone moved just outside one of the safe lanes that had been cleared from the detonation area to the helicopter-landing zone.

By the time two engineers, Geoff Handley and Rod Crane, arrived by helicopter three were dead and a total of fourteen were wounded. After consulting in the dark with a spectral figure who had the back of his legs blown off and was 'full of morphine', Handley and Crane got their bearings and began clearing the area. By 4 a.m. they were 'ratted': 'with the VC you never knew what it was, booby traps or what. The VC never worked to a pattern. Your nerves get frayed. The unknown starts to drain you.' Fresh engineers were flown in after sunrise. They discovered and neutralised a third M16 mine that no foot had found near Handley's pack in an already cleared lane. The prongs of that mine had been camouflaged with a snail's shell!

A final incident was no less diabolical. But it had a more layered history. On 14 July A Company 6RAR had been air lifted into an area about six kilometres west of the southern part of the Australian minefield. There, a track turned roughly south-west and ran about three kilometres back towards the minefield. On the next afternoon just south of the drop-off point, A Company had two contacts with a three-man enemy reconnaissance party. Two of the party were killed in a bunker, where an M16 mine and M26 grenade (almost definitely from the minefield) were found. Six days after the survivor of the reconnaissance party fled west, 3 Platoon was cut down by an M16 mine located about ten metres off the track it was also following west.

The commander of 3 Platoon, Lieutenant Peter Hines, had decided to stop his men for a break. This was probably sometime after 9 a.m. The OC A Company, Major Peter Belt, had permitted each of his platoons to carry a small transistor radio and alerted them to a momentous event to occur that morning, 21 July 1969. US Armed Forces Radio Vietnam was about to announce that man has landed on the moon. Thus, at 9.40 a.m., with the distant rumble of the B52 bombers putting in an air strike on the Long Hai Mountains, there may have been some bunching in the area as Hines went around informing his men about the Apollo moon landing. He returned to his
headquarters where many feet, including his own had trod that morning. But there, just beside his pack, in a space other feet had tended to avoid, one of his own finally landed on an M16 mine.

Hines lost his legs and died within five minutes. Eighteen others were wounded, some thirteen heavily with leg and stomach injuries. Corporal John Needs was the only unscathed NCO. ‘It was horrible, like a charnel house,’ observed one of the survivors. But it got worse. Needs was tragically killed when a second mine was detonated after a party had flown in to help. One of the helpers, Medical Officer Captain Trevor Anderson, was blinded in the explosion; another, the CO Lieutenant-Colonel David Butler, was seriously wounded. Three other soldiers were also wounded. Within four hours on 21 July yet another platoon had been decimated - two had been killed and twenty-three wounded, many grievously - without firing a shot.

Australian patrols continued in all the horror. A small number of soldiers failed to function. Tactical movement by the patrols was severely restricted, sometimes to twenty metres an hour. ‘No go areas’ existed. The mind-numbing effects of entering mined areas again and again and again took an incalculable toll. The blast, the screams, the blood and body parts and, then, the trauma and paralysis that radiated in the horrible silence. With three platoons in a company and a mere thirteen rifle companies in 1ATF at its peak, the impact of the detonation of eight or ten well-placed M16 mines on such a small force was far-reaching. By late 1969 there was talk in 1ATF of the ‘mine neurosis’. Yet vigilant sappers and forward scouts learnt to pick up local mine signs and locate many mines in meticulous searches before they were detonated. In July and August 1969 6RAR found and destroyed 157 mines before they caused casualties.

On 1 August, for example, A Company 6RAR located and neutralised twelve M16s in eight separate incidents in an area east of the minefield. On that day, not far down the track from one of the A Company incidents, some assault pioneers also noticed a small cross carved into the base of a tree. A few metres off the track and perpendicular to it, a row of eighteen M16 mines were discovered planted in the ground. The planters had anticipated that, after initiating contact with an Australian patrol, the patrol would counterattack with an assault
wave sweeping through the row of mines. One of the assault pioneers, Private Willie Williams, who had the task of ‘pinning’ all eighteen mines, was ‘wriggling the pin’ into the safety hole on the fuze assembly of the eighth mine when it jumped through his hands and, to his eternal amazement, failed to explode. He ‘pinned’ the remaining ten M16s.

Main force NLF units often manoeuvred successfully in the north and east of the province to draw 1ATF units away from the strategically vital population and rice growing areas in Long Dat District. Yet the capacity that the Australian minefield gave the NLF to redeploy thousands of M16 mines with devastating effects around those vital areas was central to the NLF’s main military achievement in Phuoc Tuy Province during the war: that of denying 1ATF the strategic initiative.

Virtually all 1ATF M16 mine casualties occurred in the vicinity of the 1ATF minefield in Long Dat District. A conservative estimate is that between May 1967 and November 1971 fifty-five 1ATF soldiers (including five New Zealanders) were killed and some 250 dismembered and wounded (including thirteen New Zealanders) on M16 mines that had their origins in the ‘barrier minefield’. 1ATF records also indicate that a further forty-two allied soldiers and civilians – overwhelmingly Vietnamese but some Americans – were killed and 172 were injured, many seriously, in the same period.

The 1ATF M16 mine casualty figures alone represent approximately ten per cent of all Australian casualties in the war between 1962 and 1972 – 501 killed and 3131 wounded. Yet the strategic suicide encapsulated in these figures was far more shattering than the mean figure may suggest. Total casualties include those from Navy, Airforce and other Army units operating outside Phuoc Tuy Province. Also the minefield was not laid until mid-1967. For the protracted period from May 1969 to May 1970, the M16 mine casualties rose to over 50 per cent of 1ATF’s total casualties. During the attempted pacification operations in Long Dat in mid-1969, the figures probably spiked at 80 per cent. The discrepancy between Australian and US experience of mine warfare in Vietnam is also telling. Whereas historian Mike Croll indicates that some 16 per cent of US mine and booby trap casualties were
caused by US ordnance, a conservative calculation is that some 45 per cent of Australian casualties from mines and booby-traps were caused by 'our own M16 mines'. This major discrepancy is owing to a single calamitous Australian command decision.

1ATF's history is bigger than the minefield. Yet the minefield and its terrible legacy epitomised Australia's involvement in the catastrophe of the Vietnam War. Blinded by their imperial perspective, Graham and his superiors were unable to anticipate and later to apprehend what in any case they could not have wanted to know: that they had unintentionally rendered to their guerilla enemy the weapons with which it successfully defended its homeland. This disaster called forth its other: the heroic sacrifice of the Australian troops who, in the Anzac tradition forged at Gallipoli, fought a protracted battle in the face of futility and horror. What saved the high political and military command from full disclosure of its incompetence was, after all, the tactical skill and endurance of the small, professional task force. 1ATF was not defeated in the field and was withdrawn from Vietnam in good order. 1ATF's tactical toughness also covered for the strategic self-destruction demanded by the anxious view from the outpost.

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I have also drawn on interviews and/or correspondence with Mr Graeme Moon, Mr Joe Cazey, Brigadier David Buring AM, Colonel Brian Florence AM MC, Mr John Thompson OAM, Mr Graeme Leach, Mr Lawrence Appelbee, Mr John Richardson, Mr Murray Walker, Mr Geoff Handley, Major-General David Butler AO DSO, Mr Phillip Baxter MM, Mr Dave Wright, and Mr Willie Williams. Transcripts of interviews with Mr Nhuyen Tu Giai and Madame Mac Xuan Linh (interviewed in Vietnam by the Glasshouse Pictures film crew and translated by Mr Philip Coen for the Glasshouse Pictures Documentary Film 'Vietnam Minefield') were also used.

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Greg Lockhart has had both military and academic careers. The Glasshouse Pictures documentary film Vietnam Minefield is based on his new book, The Minefield, which will be published by Allen & Unwin in 2007.