The Bloody Beachheads – The Battles of Gona, Buna and Sanananda, November 1942 – January 1943

By James Brien, AWM Summer Scholar 2013

Abstract

The beachhead battles of Gona, Buna and Sanananda formed the final, bloody stage of the campaign in Papua during 1942–43. Yet the story of these battles is often overlooked, meaning that their challenges, their tragedy and their significance remain largely unrealised. From mid-November 1942 exhausted, battle-weary Australian and inexperienced American troops began a brutal and uncompromising two-month campaign against the Japanese-held beachheads at Gona, Buna and Sanananda. The Allies' attacks stalled against desperate Japanese defenders and their labyrinth of bunkers and trenches. The swamps and jungles of the Papuan coast compounded the already difficult task facing the Allies. In these conditions, conventional tactics and fire support were rendered ineffective, forcing commanders to adapt operations on the ground. These tactical issues were further complicated by a persistent 'pressure from above' from General Douglas MacArthur, commander of Allied forces in the South West Pacific Area, with his exhortations for a quick victory, no matter the cost. This presented commanders at all levels with a series of tactical problems unlike any that they had previously encountered, to which there was no easy solution. The three main factors – the terrain, the mentality of the Japanese defenders and MacArthur's constant pressure – greatly influenced the tactical approaches and application of resources during the campaign, forcing a regression in some aspects and innovation in others. This paper seeks to examine the factors at work and their influence on the tactics involved and the experiences of those who fought.

The strategic situation

Following defeats at Eora Creek and Oivi–Gorari on the Kokoda Trail, Japanese forces in Papua retreated to three key positions along a 25-kilometre stretch of the north coast: Gona to the west, Buna to the east, and Sanananda–Giruwa in the centre.¹ Believing

¹ For an account of these battles see Dudley McCarthy, South West Pacific Area first year: Kokoda to Wau, Australian War Memorial, Canberra, 1959, pp. 281–335.
that the remaining Japanese forces were the demoralised and battle-weary remnants of the South Seas Force, MacArthur resolved to eliminate these positions once sufficient supplies had been built up by mid-November. It was decided that the Australian 7th Division would be assigned the tasks of capturing Gona and Sanananda, leaving the American 32nd Division to seize Buna. Initial intelligence reports estimated that there were between 1,000 and 4,000 Japanese defenders, most of whom were sick, wounded or exhausted after the retreat from Kokoda.² American soldiers of the 32nd Division were told that they would not face more than two squads defending Buna.³ In actual fact, the beachheads were defended by around 10,000 Japanese servicemen.⁴

From the outset, neither MacArthur nor General Sir Thomas Blamey, commander of the Allied Land Forces, truly appreciated the difficulty of the task they had given their forces,

particularly the impact terrain would have on the battles. Terrain influenced all facets of warfare, from the objectives of Gona, Buna and Sanananda themselves to the movement of troops, logistics, and the layout of Japanese defensive positions. The coastal plains of Papua therefore need to be considered when assessing the overall course of the battles.

**Terrain**

The north coast of Papua was a “green hell” for military operations. The terrain and climate were not conducive to an offensive campaign. The majority of the area was dominated by tidal swamps. Private Ernst Gerber of the American 32nd Division recalled that, while fighting around the “Triangle” at Buna the “terrain varied according to the tide. The water could be up to your ankles, or up to your neck.” These swamps severely impeded possibilities for movement, and worsened the overall condition of troops after prolonged periods in action. The areas not dominated by swamp were predominantly dense jungle and scrub, most of which was impenetrable. Large swathes of kunai grass

Members of the Australian 2/7th Cavalry Regiment struggle through the jungle and swamps surrounding Sanananda during late December 1942. The conditions endured by soldiers here were often described as the worst they saw during the entire war. (AWM 013971)

covered the drier areas, and could easily grow over two metres tall. In the humid conditions the grass trapped the heat, and it was not uncommon for temperatures to reach 50°C in the grass. Along the drier coastal strips were coconut plantations established by white traders before the war. The plantations were generally about 100 metres wide, and though the terrain was usually flat, undergrowth had quickly reclaimed the ground since war had broken out.

The campaign also started at the beginning of the wet season in Papua, which brought tremendous rainfall. Combined with intense daytime heat, the humidity was oppressive, sapping the energy of soldiers and service personnel. Nothing remained dry for long and the shallow foxholes of the Allied soldiers and the bunkers and trenches of the Japanese filled with inches of water. The terrain took a physical and psychological toll on the men fighting in the jungles and swamps. This was apparent to General Robert Eichelberger, who took command of the American 32nd Division in December:

The psychological factors resulting from the terrain were also tremendous. After a man had lain for days in a wet slit trench or in the swamp, his physical stamina was reduced materially. This reduction served to make him extremely nervous and to attribute to the unfamiliar noises of the jungle specters of Japanese activity. These reactions preyed on his mind until he was reduced to a pitifully abject state, incapable of aggressive action.

There was little in the way of infrastructure in Papua to facilitate movement and transport. Only the largest tracks were charted on maps, but even these were little more than foot-worn trails. The only “road” was a corduroy track that ran between Soputa and Sanananda, but this quickly became boggy after the wet season rains which fell during December. The few tracks and the nature of the terrain severely restricted the routes which the advancing Allied soldiers could take. Efforts to move off these paths were fraught with difficulty as units sent to outflank positions would often run into impenetrable swamps or jungle. General Vasey’s plan to strike at Sanananda from Gona with two battalions had to be abandoned after patrols were unable locate a route through dense jungle and swamps. There were no airstrips available for the Allies to use until

7 Bergerud, Touched with fire, p. 75.
9 Bergerud, Touched with fire, p. 68, 79.
10 Brune, A bastard of a place, p. 466.
they were hastily constructed at Po pondetta and Dobodura, nor ports until makeshift ones were established at Hariko and Oro Bay.

Papua’s terrain also posed a serious logistical challenge to both sides. Holding territory suitable for ports and airfields, which the beachheads represented, was a strategic imperative. The lack of infrastructure not only limited the movement of troops, but also imposed serious logistical limitations on the transport of supplies, ammunition and fire support to assist in the campaign. Both forces operated on a shoestring supply line, balancing the needs for ammunition, artillery shells and food – none of which were ever plentiful. Until they established airstrips capable of sustaining resupply by air, the Allies relied on the Australian New Guinea Administrative Unit (ANGAU) and its native carriers to keep their soldiers supplied. Supplying troops by sea was not feasible as there were too few naval transports and the coastline was treacherous with reefs. Both forces also soon found that naval resupply was vulnerable to air attack. The Allies lost four luggers at the outset of the campaign, crippling their naval transport capabilities, while Japanese resupply and reinforcement convoys were constantly turned back after coming under attack by Allied aircraft.

**Disease**

The impact disease had on the health of the soldiers involved in the campaign was far greater than any military planner could have imagined. Moving into the beachhead region, Australian, American and Japanese forces entered one of the most malarial environments in the world. While malaria was the greatest threat, other tropical diseases such as scrub typhus, ulcers and dysentery were also commonly encountered. Malaria served to debilitate a large proportion of the forces involved – it is estimated that between

---

12 Bergerud, *Touched with fire*, p. 327.
13 “Notes and Lessons from Recent Operations in Gona–Sanananda Areas”, Lt-Col Ralph Honner, 39th Battalion, AWM54 581/7/19, Part 5.
85 and 95 per cent of all soldiers in the area carried malaria during the battles.\textsuperscript{18} The impact of the disease was greatly exacerbated by the already weakened condition of the soldiers and a lack of nutrition. Despite the prevalence of the illness, it was necessary for most men to stay in the line as there were so few reinforcements available. It was not uncommon for men to be kept in the line running a temperature of 40ºC.\textsuperscript{19} By January 1943, for every one Allied battle casualty, there were 4.8 sick casualties being admitted to hospitals in the forward area.\textsuperscript{20} Japanese accounts of the prevalence of the disease are similarly shocking. One Japanese soldier recalled that between 20 and 30 Japanese soldiers died each day during December in the hospital at Buna.\textsuperscript{21} Japanese medical officers simply could not treat their men, given the shortage of supplies, and their greatly weakened state made them extremely susceptible to tropical disease.

**Terrain and its impact on operations**

Terrain had a profound impact on command. Clear objectives and communication were necessary prior to operations, as officers found that jungle conditions seriously undermined their control. Units moving through jungle, swamps and kunai grass quickly became separated and lost visual contact with each other. This meant that officers needed to be in the thick of the fighting to direct units and sub-units to achieve their objectives. However, any signs of command immediately drew the attention of the Japanese defenders, especially snipers. As a result, there was a very high casualty rate among officers, particularly company and platoon commanders.\textsuperscript{22} As jungle warfare centred around small-unit tactics and initiative, the loss of this leadership was critical.\textsuperscript{23} Communication became increasingly difficult as unit cohesion broke down and much of the communications technology failed in the terrain and climate of Papua. Wireless sets were few in number and susceptible to the damp, while field telephone cable was

\begin{itemize}
  \item \textsuperscript{18} Bergerud, *Touched with fire*, p. 94.
  \item \textsuperscript{19} Allen S. Walker, *The island campaigns*, Australian War Memorial, Canberra, 1957, p. 86.
  \item \textsuperscript{20} "Medical Reports: Notes on Operations Owen Stanley – Buna Areas", Appendix V, AWM54 481/121/50. (There were 313 battle casualties admitted in January and 1498 sick casualties. Both battle and sick casualties were significantly higher in December, with 763 battle casualties to 2478 sick casualties, but a ratio of only 1.3:2.)
  \item \textsuperscript{21} Unknown Japanese Soldier cited in McAulay, *To the bitter end*, p. 201.
\end{itemize}
frequently cut and in insufficient quantity. Commanders were forced to rely on runners to send messages, but there was no guarantee that a runner would get through safely. The problem of communication remained a serious consideration throughout the campaign, though no ready solution was found.

Terrain and the persistent need for haste meant that intelligence gathering on the Japanese defences and dispositions was often incomplete, if attempted at all. Little time could be allocated to reconnoitring areas to be attacked, and it was usually up to individual officers to use their initiative to scout. Aerial photography was used in conjunction with the few available maps to form a picture of what ground the Allies were likely to face. While the photos could show a large area, they could sometimes give the wrong impression. The dense vegetation often obscured many of the important features that needed to be noted. Areas of ground which looked flat and relatively clear often

An aerial photograph taken over Sanananda Point in the later stages of the campaign. It shows the difficulties imposed by terrain on operations and the gathering of information for the Allies. (Source: Operational Survey No. 1: Land–Air Offensive in New Guinea Kokoda to Gona–Buna: Nov. 2nd 1942 – Jan. 23rd 1943, Allied Air Forces South West Pacific Area, Photo 55.)

turned out to be large patches of kunai grass or swamp. They also failed to identify many of the Japanese defensive positions. Even when there were aerial photos, they were not always in sufficient numbers, nor distributed in a timely fashion to commanders. The 30th Brigade at Sanananda did not receive any aerial photos of the area until 18 December, almost two weeks after arriving at the front. After the battle for Gona, Lieutenant Colonel Ralph Honner, commanding the 39th Battalion, was horrified to learn that there had been a considerable number of good aerial reconnaissance photos which had not been distributed.

**Japanese Defensive Networks**

The engineers and construction troops of the Japanese garrisons were responsible for the construction of one of the most impressive defensive networks seen in the entire war. They made excellent use of the terrain and natural resources to build a formidable network of trenches and bunkers in the weeks before the beachhead battles began. The terrain limited the tactical possibilities for attacks, lending itself to defence. Hundreds of bunkers were sited to cover all likely approaches, using the higher ground where available, and positioned to provide mutual fire support to one another. These bunkers were constructed using multiple layers of fallen palm logs, reinforced by 44-gallon drums filled with earth or concrete. Jungle regrowth quickly covered them up, making them perfectly camouflaged to attacking infantry. Shallow crawl trenches connected the bunkers, allowing the Japanese to move under cover to different positions. The Australian 2/6th Independent Company operated at Buna to

---

25 McAulay, *To the bitter end*, p. 147.
26 War diary, 30th Brigade, 18 December 1942, AWM52 8/2/30.
assist the US 32nd Division in the early stages of operations. The unit diary describes the typical emplacement they encountered:

All emplacements appeared to be made of cocoanut [sic] logs laid lengthwise with others placed on bearers forming the roof. The whole was then camouflaged according to the country in which it was situated...In most cases the loopholes were hidden to view by a screen of bush or camouflage, although vision from the inside out was still possible, and in most cases the pillbox or emplacement was not discovered until you were right on to it.\(^\text{29}\)

The Japanese held these positions with great tenacity and took a heavy toll on the attacking infantry. Map 2 clearly shows the comprehensive network of trenches, machinegun posts and strongpoints which dominated Gona. They covered all possible approaches and could provide supporting fire to one another if under attack. The positions were hard to identify, and according to one American officer at Buna, they were usually found only by losing men.\(^\text{30}\)

\[\text{The Japanese bunkers along the beachheads were extremely well built and well camouflaged, and often not seen until it was too late for the attacking Australian and American infantry. (Left: AWM013931, Right: AWM013973)}\]

\textbf{Pressure from above}

Compounding the difficulties posed by terrain and the Japanese defences was persistent pressure from General MacArthur’s headquarters.\(^\text{31}\) The swift capture of the

\begin{footnotesize}
\begin{enumerate}
\item War diary, 2/6th Independent Company, 30 November 1942, AWM52 25/3/6/4.
\item David Horner, \textit{Crisis of command: Australian generalship and the Japanese threat, 1941–1943}, Australian National
\end{enumerate}
\end{footnotesize}
beachheads was driven by MacArthur’s personal desire to compete with the progress of the Marines in Admiral William Halsey’s campaign on Guadalcanal to achieve the first major land victory against the Japanese – an accomplishment “essential to his own prestige”. There was also the very real threat that the Japanese could reinforce the beachhead positions – the Japanese still enjoyed naval supremacy and had a large fleet of ships and troops stationed at Rabaul 650 kilometres away. The greatest criticism of MacArthur’s handling of the campaign is that he had no understanding of the ground conditions faced by his commanders and troops, yet he continued to interfere and pressure them to achieve unreasonable outcomes. Despite being stationed in Port Moresby only 60 kilometres away, MacArthur did not visit the front during the campaign. Not only would this have been a morale boost when the campaign began to stall, but MacArthur could have seen firsthand the truly difficult task that his forces faced. On 20 November, MacArthur told Blamey that “all columns will be driven through to the objectives regardless of losses”. The next day he told General Harding to “take Buna today at all costs”. Such reckless and ill-informed orders continued when MacArthur replaced Harding with General Robert Eichelberger to hasten the capture of Buna. He informed Eichelberger that:

I want you to remove all officers who won’t fight. Relieve regimental and battalion commanders if necessary, put sergeants in charge of battalions and corporals in charge of companies – anyone who will fight. Time is of the essence, the Japs might land reinforcements any night. I want you to take Buna or not come back alive.

On 24 December MacArthur issued another unreasonable order to Eichelberger at Buna, that he should be attacking “by regiments, not companies, by thousands not hundreds”. This shows a complete ignorance of the tactical situation on the ground, not to mention the disposition of his forces.

Both MacArthur and Blamey risked losing their commands should the campaign end in failure. As the battles progressed and there was no end in sight, MacArthur told

---

32 David Horner, General Vasey’s war, Melbourne University Press, Carlton, 1992, p. 216
General Herring of New Guinea Force, “This situation is very serious. If we can't clear this up quickly I'll be finished and so will your General Blamey.” MacArthur’s primary concerns did not relate the tactical situation and the strain his subordinates were under, but to his own personal future and his reputation. His constant exhortation for speed had led to the very situation he had feared. However, Blamey began to recognise the immense strain that his subordinates were under. To his credit, he adopted a more reasonable outlook on the campaign when he informed one of Prime Minister Curtin’s advisers that he expected the current campaign to use up all available resources “both Australian and American, for many months to come”.

Infantry on the beachheads

While the campaign began optimistically, it soon became clear that the Japanese defenders were not prepared to relinquish the beachheads. Constantly under pressure, battalion commanders were forced to push their already exhausted troops into battle with little preliminary intelligence, no time for reconnaissance, and without adequate supplies. They were not able to follow standard operating procedures, to concentrate their forces or be provided with adequate fire support for the operations they were undertaking. In most cases, units were committed to piecemeal frontal assaults against well-concealed strongpoints. The battle experience of the AIF units could not save them from a terrible rate of casualties, while the inexperienced Militia and American National Guardsmen received a brutal and bloody baptism of fire. Infantry would attack shortly after a preliminary artillery or air bombardment, but this pattern was frequently repeated and the Japanese defenders came to recognise it. They would seek shelter out of the fire and then reoccupy the forward positions in time to meet the Australian attacks. When the infantry reached the Japanese defences they had usually sustained too many casualties to hold the position, and there were rarely reserves to bring up. Success at Gona came on 8 December, when Honner’s 39th Battalion did not follow the pattern laid down before. Honner used a delay in his attack to scout an approach through jungle which led right up to the Japanese

37 Gen D. MacArthur to Lt Gen E. Herring, cited in Horner, General Vasey's war, p. 228.
39 Horner, Crisis of command, p. 224.
40 Pratten, Australian battalion commanders, p. 184.
defences. He also made use of the few delayed-fuse artillery shells that were available for the attack. Honner ordered his troops to advance during the barrage, catching the Japanese while they were sheltering. The 39th Battalion’s attack cut through the middle of Japanese defences, and that evening the Japanese garrison began a desperate attempt to break out. Sadly, the ingenuity of Honner’s plan was rarely replicated along the beachhead front.

The Australian attack at Sanananda on 7 December demonstrates the tragedy of rushing inexperienced units into attacks without adequate preparation, training or support. As available forces were being worn down by battle and disease, Blamey had no choice but to commit the Australian Militia’s 36th, 49th and 55/53rd Battalions to Sanananda. These units had spent most of their time in Papua unloading boats or constructing roads rather than training or in combat. The 49th Battalion in particular had received very little weapons or jungle fighting training. Many men received their first training in the use of

---

41 War diary, 39th Battalion, 8 December 1942, AWM52 8/3/78
Bren and Owen guns or throwing grenades on their arrival at the front, just a few days prior to being sent in to battle. Private Kevin Barry recalled the experience:

Bearing in mind at this time I’d never held a rifle in my hand, never ever fired one – didn’t know anything about it ... Next minute we’re over there [Sanananda] and we’re lining up at 3.15 pm on the 7th of December, fixed bayonets ...

Battalion commanders were briefed late on the evening before the attack, giving them little time to brief their officers or reconnoitre the terrain. Brigadier Selwyn Porter simply issued an order to the 55/53rd Battalion to “attack enemy positions astride the road” at 2:45 that afternoon. The 49th Battalion attacked as ordered on the morning of 7 December, but quickly ran into trouble as communications broke down and the supporting companies

The Australian Militia Forces (left) and the American National Guardsmen (right) were not well trained or prepared for the tasks that faced them along the beachhead front. (Left: AWM013931, Right: AWM013973)

became separated. The battalion lost 14 officers and 215 men in just five hours of fighting – 48% of the battalion's fighting strength – for no gain. The 55/53rd Battalion was still

44 War diary, 55/53rd Battalion, 7 December 1942, Appendix No. 2, AWM52 8/3/91.
ordered to attack, with similar results. Private Barry described the chaos and uncertainty of the attack:

So out we go and they say charge – into the jungle we go ... and all of a sudden the shit hits the fan. Machine-guns; and I’m going along and I can hear this and I’m hanging on to the rifle and I’m shit scared – then in the next minute I’m up in the air – lost the rifle, lost my tin hat – hit in the shoulder ... that was the sum total of my wartime experience.46

The battalion lost 8 officers and 122 men (28 of them NCOs) in the ill-fated attack. Towards the end of December the Militia units became highly disillusioned and demoralised after numerous failed attacks and high casualties. This led to instances of mutiny, such as when C Company of the 36th Battalion refused orders to advance on 28 December.47 Over one third of Australian casualties at Sanananda were sustained by Militia battalions during their brief occupation of the front line, a result of the persistent need for haste and the horrible rate of attrition suffered by all units.48

By this stage it was clear that the continuation of these tactics was infeasible. Allied commanders had to repeatedly fall back on a policy of aggressive patrolling and continual bombardment rather than committing to direct attacks.49 Vasey effectively summed up the dilemma after abortive attack on 12 January:

To attack [the enemy] with infantry using their own weapons is repeating the costly mistakes of 1915–1917 and, in view of the limited resources which can be, at present, put into the field in this area, such attacks seem unlikely to succeed.50

Vasey had long been aware of the issue, but progress had been limited by a lack of supporting resources. He wrote: “For weeks and weeks now I have been trying to make bricks without straw, which in itself is bad enough, but which is made much worse when others believe you have the straw.”51 There was no question about the Australians’ willingness to attack, but without adequate artillery, shells and supplies, it was unreasonable to expect infantry alone to win the battles.

47 War diary, 36th Battalion, 28 December 1942, AWM52 8/3/75.
48 Brune, A Bastard of a place, p. 574.
49 McCarthy, South West Pacific area first year, p. 412.
50 Maj Gen G. Vasey cited in Horner, General Vasey’s war, p. 253
51 Maj Gen G. Vasey cited in McAulay, To the bitter end, p. 262.
Armour on the beachheads

In mid-December, Blamey decided it was possible that armour could be deployed to Buna to support the infantry which had stalled against the Japanese defences. It was an inventive and surprising solution to the tactical problem, but one which created new issues for the Allied campaign. Eight tanks from the 2/6th Armoured Regiment were sent to Buna ready to commence operations for 18 December. The 2/6th was equipped with the small American M3 Stuart Light Tank. The tank had not been designed for the claustrophobic jungles of Papua or close infantry support, but rather for open country and reconnaissance against German panzers. Similarly, the crews were not trained for combined arms operations, but for desert warfare. The tank's greatest strengths – its speed and mobility – were negated by the terrain of the Papuan coast. They lacked the armour protection to be effective infantry support tanks, but nevertheless, they were able to provide much-needed fire support. The Stuarts were tasked with supporting the 2/9th Battalion's attack on Cape Endaiadere on 18 December. As the tanks crossed the start line, it marked the first time Australian tanks had been used against the Japanese, but the occasion also demonstrated several key issues regarding their operation. Firstly, terrain severely limited the ground on which the tanks could operate. The drier, firmer ground closer to the coast was most suitable, but further inland the ground became softer and boggy, forcing two tanks to turn back. The ground in the coconut plantations was also hazardous. Two tanks bellied on stumps or logs which had been concealed by undergrowth, rendering them immobile and vulnerable to Japanese anti-tank infantry. After Sergeant Jack Lattimore's tank became immobilised it

---

52 Horner, Crisis of command, p. 235.
53 Trp John Wilson, 2/6th Armoured Regiment, cited in Brune, A bastard of a place, p. 496.
55 War diary, 2/6th Armoured Regiment, 18 December 1942, AWMS2 3/1/12.
was swarmed by Japanese infantry armed with petrol bombs; the tank was only saved when they were driven off by supporting Australian infantry.\textsuperscript{56} This demonstrated the need for close infantry–tank cooperation. In the close-quarters fighting typical of the Buna beachhead, tanks without infantry support were very vulnerable to Japanese anti-tank infantry, who showed little fear when attacking the Australian tanks. Similarly, infantry attacking without the close support of tanks also suffered heavily. Captain Cecil Parbury’s C Company, operating furthest inland, spent most of the morning pinned down and taking heavy casualties. Advancing over 100 yards of open kunai grass, the company lost 46 of 87 men in the first stage of the attack. However, when three tanks were despatched to assist them, they were able to advance and neutralise 16 bunkers in 30 minutes, killing at least 160 Japanese. Parbury organised infantry sections either side and in between two forward tanks. Warrant Officer James Jesse, leading the section in the centre, used Very lights to indicate targets for the tank gunners.\textsuperscript{57} One platoon was held back to provide fire support while another followed closely behind the tanks to protect them. The tanks used their machine-guns and 37mm cannon firing High Explosive shells to suppress the Japanese bunkers, allowing the infantry to close on them and engage them with small arms and grenades. The tanks would also rake the tops of the coconut trees with machine gun fire to take out the numerous snipers positioned in them. Corporal Evan Barnet’s tank fired 343 37mm rounds and over 6000 .30 machine-gun rounds that day.\textsuperscript{58}

The day also demonstrated that communications between infantry and tanks, and

\textsuperscript{56} Brune, \textit{A bastard of a place}, p. 507.
\textsuperscript{57} McCarthy, \textit{South West Pacific Area first year}, p. 461; War diary, 2/9th Battalion, 18 December 1942, AWM52 8/3/9.
\textsuperscript{58} War diary, 2/6th Armoured Regiment, Appendix: Cpl Barnet’s Account of Action, AWM52 3/1/12.
between the tanks themselves, was very difficult. The wireless sets in the tanks were practically useless in combat. There was experimentation with infantry using American hand-held wirelisses, but the operators drew too much attention from Japanese snipers. Operational orders issued prior to the battle outline some basic visual communications for infantry to use to communicate with the tanks, but the poor visibility for tank crews meant these were often missed. It was often easier to fire flares, as Jesse had in the C Company attack, or to get the attention of the tank crew by simply climbing on board. A report issued after the battle commented:

Poor visibility was found to be one of the crew commanders’ main problems (also the driver’s). This was mainly due (apart from the shortcomings of the tank’s vision arrangements) to heavy undergrowth and grass from four to ten feet high.

Cpl. R.F. Rodgers of the 2/12th Battalion directs the fire of an M3 on a Japanese bunker. Infantry–tank cooperation and communication often had to be improvised under fire. (AWM 014002)

This also meant that it was difficult for crews to identify ground that was impassable or hid obstacles such as logs, stumps and craters. Numerous M3s became bogged, bellied, or ended up in shell holes during the battles. Despite the shortcomings, the M3s were heavily involved in the fighting at Buna, though once the element of surprise had been lost they were far more vulnerable. On 24 December, four M3s advanced over the open ground of the Old Strip and were knocked out by a Japanese 75 mm anti-aircraft gun that was thought to have been disabled.\footnote{Brune, \textit{A bastard of a place}, p. 521–25.} Worse still was the attempt to use tanks at Sanananda. The terrain was entirely unsuited to their use – thick jungle and swamp lay either side of the main track, leaving it the only possible axis of advance. Three tanks were designated to support an infantry attack on 12 January 1943, but the tanks advanced no more than 60 yards before a well-concealed Japanese anti-tank gun opened fire and promptly knocked out all three tanks. A report by the 2/6th Armoured Regiment after the battle concluded, “From operations in the Buna–Sanananda area it is considered that the country is definitely unsuitable for light M3 tanks.”\footnote{“New Guinea Force Report: Operations Using M3 Light Tanks in New Guinea – 2/6\textsuperscript{th} Armoured Regiment Buna – Sanananda 18 December 1942 – 22 January 1943”, p. 2, AWMS4 581/7/38.} Nonetheless, the value of tanks in close-quarters jungle fighting had been demonstrated. There is no doubt that the M3s at Buna were crucial in clearing the Japanese bunkers along the coast. However, they were limited in the areas they could operate and needed close cooperation and organisation with infantry commanders to maximise their impact.

**Artillery on the beachheads**

Tanks alone could not solve the tactical problems facing the Allies. One of the biggest problems was fire support. Allied combat doctrine focused on the principles of manoeuvre and fire support to overcome opposition. However, terrain not only limited the number of artillery pieces and shells that could be brought into action; it also limited the effectiveness of artillery fire directed against the beachheads. Gunner Shaw Brown’s diary outlined some of the hardships facing artillerymen at Buna and Sanananda.\footnote{Diary, Gunner Shaw Brown, December 1942, PR91/061. (Gunner Brown served with the 2/5th Field Regiment manning 25-pounder guns at Buna and Sanananda.)} After arriving at Oro Bay, where basic wharf facilities were still under construction, his
detachment had to manhandle their guns into position 4.5 kilometres south of Buna. They had only a small clearing to set up in, and had to lop the tops off trees to clear a firing arc for the guns. One of the greatest problems was the man-hours required to transport ammunition to the guns. Two shells were carried in a single crate, weighing about 20kg, and these usually had to be carried by two artillerymen or porters. There were few jeeps available to assist in transporting them. They had to be carried through jungles and swamps to the guns, with some journeys taking the men several hours to complete. Brown’s gun fired in support of the 2/9th Battalion’s attack on Cape Endaidere on 18 December, but was allocated only 34 rounds for the preliminary bombardment. Later in the day they were called on to take out pillboxes. Brown’s gun fired 119 rounds that day, but scored only four direct hits.

Brown’s experience highlights the difficulties facing artillery crews on the beachheads. Aside from the severe logistical challenges, there were difficulties in providing accurate and effective fire support for infantry attacks. The scrub and jungle made it extremely difficult to observe artillery fire. Observation was only possible from observation posts set up in tall trees or by forward observation officers attached to front line sections. Even then, trees offered little appreciable advantage given the density of the vegetation. Observation so close to the front was also fraught with dangers. When fire could not be directly observed, spotters pioneered the sound-and-splinter method, gauging the fall of shells from the

---

65 Diary, Gunner Shaw Brown, December 1942, PR91/061.
66 Diary, Gunner Shaw Brown, December 1942, PR91/061.
67 Diary, Gunner Shaw Brown, December 1942, PR91/061.
sound of their explosion and their splinter pattern.\textsuperscript{69} As the campaign developed, it was found that cooperation between observers on the ground and aircraft from No. 4 Squadron RAAF, was the best way to accurately spot for artillery, as “arty R [Artillery Reconnaissance] planes became a flying OP [Observation post]”.\textsuperscript{70} It was a dangerous job for the pilots as the Japanese still maintained anti-aircraft guns and many machine-guns – orders were issued that these planes were to be made priority targets.\textsuperscript{71}

Even when these difficulties were overcome, the effectiveness of artillery in neutralising enemy positions was still limited by the type of artillery and shells available.\textsuperscript{72} The 25-pounder gun was the standard artillery piece used during the beachhead operations, but the tasks of destroying Japanese bunkers was found to be “beyond the scope of 25 prs”.\textsuperscript{73} The gun’s flat trajectory and small explosive shell was not suited to destroying emplacements, but rather for fire support against exposed targets – of which there were very few. Most shells fired by the guns were also armed with instantaneous fuses, which were unsuitable for destroying bunkers. Instantaneous fuses would burst on contact with the dense vegetation or coconut palms which dominated the area, dissipating the force of the explosion. Direct hits on bunkers were absorbed by the layers of earth packed on top. It was found that, with adequate observation, between 100 and 200 shells fired by a group of four guns were needed to reduce a large emplacement.\textsuperscript{74} The sturdy construction of the bunkers and the lack of artillery shells made this a slow process, and artillery was rarely able to reduce bunkers on their own – it was a task primarily for the infantry. Much more effective was the use of delayed fuses on artillery shells, which burst moments after impacting with the ground. This allowed them to penetrate the vegetation and earth. The Japanese defenders referred to delayed-fuse shells fired from an American 105mm howitzer at Buna as “earthquake bombs”.\textsuperscript{75} However, there was a drastic shortage of delayed fuses for use, severely limiting the effectiveness of artillery in reducing bunkers and suppressing the defenders. At Gona, the use of delayed fuse shells

\textsuperscript{69} Threlfall, “The development of Australian Army jungle warfare”, p. 176.
\textsuperscript{70} “Artillery Operations in Buna–Gona Area”, Brig L.E.S. Barker, 31 Jan 1943, AWM54 581/6/9.
\textsuperscript{71} McAulay, To the bitter end, p. 154.
\textsuperscript{72} Threlfall, “The development of Australian Army jungle warfare”, p. 189.
\textsuperscript{73} “Artillery Operations in Buna–Gona Area”, Brig L.E.S. Barker, 31 Jan 1943, AWM54 581/6/9.
\textsuperscript{74} “Artillery Operations in Buna–Gona Area”, Brig L.E.S. Barker, 31 Jan 1943, AWM54 581/6/9.
was critical to the success of the 39th Battalion on 8 December, when attacking troops spent two full minutes under their own artillery bombardment as they stormed Japanese positions. In most cases, however, infantry attacked after shelling had concluded, negating any advantage that may have been gained from forcing the Japanese into cover. After the battle, numerous criticisms were levelled about the role and concentration of artillery – mainly from American commanders – but as Herring rightly asserted, it was not the number of artillery pieces in action that was the limiting factor, it was the supply of shells. With the shoestring supply line on which the Allies operated, it was not possible to provide enough shells for overwhelming artillery support without sacrificing the supply of other essentials like food, medical supplies and ammunition.

**Air support on the beachheads**

General George Kenney, Commander of the Allied Air Force, had hoped at the outset of the campaign that Allied air superiority would compensate for the shortages of artillery pieces and shells. But Kenney’s optimism was soon found to be misplaced, as aircraft faced serious limitations imposed by the nature of the fighting and the terrain. The dense vegetation and camouflaged positions made identifying ground targets and distinguishing friendly positions extremely difficult. Air–ground cooperation was still in its developmental stage, but in these conditions the effectiveness of close air support was extremely limited during the beachhead battles. Infantry were often unable to communicate with aircraft via radio to confirm their position relative to the enemy’s, which led to numerous instances of “friendly fire”. One such instance helped to save lives as it gave the 39th Battalion a reason to call off a planned frontal assault for 7 December, giving them time to reconnoitre for the highly successful attack on 8 December. Despite the Allies having almost complete air superiority, air bombardment was even less effective at destroying the Japanese emplacements than artillery. Allied aircraft dropped 2,807

---

76 “Notes and Lessons from Recent Operations in Gona–Sanananda Areas”, Lt–Col Ralph Honner, 39th Battalion, AWM54 581/7/19.  
77 Horner, *Crisis of command*, p. 262.  
78 Horner, *Crisis of command*, p. 262; McAulay, *To the bitter end*, p. 15.  
80 War diary, 39th Battalion, 7 December 1942, AWM52 8/3/78.
fragmentation bombs (28 tons) and 728 demolition bombs (124.5 tons) on Buna alone.\textsuperscript{81} Fragmentation bombs were of little use against bunkers, and it proved very difficult to bomb specific targets accurately. The results of such heavy bombardments were much less than expected.

However, air power played a major role in other areas. The campaign in Papua was the first military campaign to rely heavily on air transport and resupply.\textsuperscript{82} For the Allies was the most efficient method of transporting troops and supplies to the front after the construction of airstrips at Popondetta and Dobodura. The Japanese attempted air resupply on occasion, but relied primarily on naval convoys and barges.\textsuperscript{83} However, these resupply convoys became more vulnerable to Allied air attack as the campaign wore on. Allied air superiority was crucial in turning back Japanese reinforcement and resupply convoys. The Japanese made numerous attempts to send naval convoys

\textbf{A Wirraway from No. 4 Squadron, RAAF, flies low over Japanese positions directing artillery fire during an Australian attack on Buna. Aerial observation was the most reliable method of spotting. (AWM013945)}

\textsuperscript{82} Bergerud, \textit{Touched with fire}, p. 334.
\textsuperscript{83} Diary, Gunner Shaw Brown, December 1942, PR91/061.
with fresh troops and equipment to the beachheads, but most were turned back by harassing Allied bombers. Only one major contingent of troops was successfully landed, but this was far to the north-west of Gona and these troops never contributed to the battles. Air resupply meant that the Allies remained better supplied than their Japanese counterparts during the campaign. Aircraft were also vital to observation, reconnaissance and artillery spotting during the campaign. The Wirraways of No. 4 Squadron RAAF were slow and lightly armed, but proved invaluable in directing artillery fire.\textsuperscript{84} Infantry and gunners alike marvelled at the courage displayed by the pilots who flew low and slow over the beachheads. The constant presence of Allied aircraft and the lack of a Japanese response had a significant impact on the morale of Japanese soldiers. Private Kiyoshi Wada was one of the garrison at Sanananda. His diary recounted Allied strafing and bombing on a continual basis. On 1 January 1943 he wrote, “Not a single one of our planes flew overhead, and enemy strafing was very fierce”, and on the next day, “It would be good if two or three of our planes came over.”\textsuperscript{85} The Japanese could not match the Allies in the air, and their air presence dwindled to nil by the later stages of the campaign.

The Japanese on the beachheads

The circumstances facing the Japanese soldiers holding the beachheads were dire. As the situation in Papua deteriorated, Japanese commanders were left with no clear strategic plan.\textsuperscript{86} Colonel Yamamoto Hiroshi, commander of the Buna sector, was simply told, “It is essential for the execution of future operations that the Buna area be secured. Our strategic position in the seas will be fundamentally shaken if this area is lost.”\textsuperscript{87} However, Papua was already the secondary front as resources were diverted to save Guadalcanal. Nonetheless, the Japanese defenders followed their orders to hold every inch of ground to the last man. This kind of fanatical resistance confounded the Allies. In the past, opposition under such sustained pressure had broken or surrendered – even the Japanese had, as they retreated back over the Owen Stanleys. The Japanese soldiers’

\textsuperscript{84} “Artillery Operations in Buna–Gona Area”, Brig L.E.S. Barker, 31 Jan 1943, AWM54 581/6/9; McAulay, To the bitter end, p. 67; Threlfall, “The development of Australian Army jungle warfare”, p. 287.
\textsuperscript{86} Bullard, Japanese Army operations, pp. 210–12.
\textsuperscript{87} Imperial Japanese Army Staff Telegraph Order No. 627, 16 November 1942, cited in Bullard, Japanese Army operations, p. 206.
commitment to fight till they were killed made the task facing the Allies that much more challenging. Each strongpoint had to be taken and all opposition eliminated. Early in the campaign Vasey wrote that:

The Jap is being much more stubborn and tiresome than I thought and I fear a war of attrition is taking place … The Jap won’t go till he is killed and in the process he is inflicting many casualties on us. 88

Many Japanese soldiers accepted that it was their fate to die defending the beachheads. At Buna, Lance Corporal Seiichi Uchiyama wrote in his diary: “No thoughts of returning home alive. Want to die like a soldier and go to Yasukuni Shrine.” 89 Very few prisoners were taken by the Allies. Even the sick and wounded in hospitals resisted capture by fighting or taking their own lives. At Buna, only 50 prisoners were taken, most of them labourers who had helped to defend the garrison. 90

The Japanese defenders combined this fanatical resistance with numerous clever ploys which thwarted the Allies for the duration of the campaign. As previously mentioned, there was their masterly use of the terrain and the construction and camouflage of their bunkers. The defenders moved between these positions using shallow crawl trenches to change firing positions, giving the impression that there was overwhelming fire power deployed against the attackers. 91 The Japanese also exploited the terrain by positioning snipers in the treetops. These snipers had a commanding view of the battlefield and were able to pick off high value targets like officers and machine-gunners. During the 2/12th

89 Lnc Cpl Seeichi Uchiyama, 229th Regiment cited in Collie and Marutani, The path of infinite sorrow, p. 246.
90 McCarthy, South West Pacific area first year, p. 496.
91 Collie and Marutani, The path of infinite sorrow, p. 201–02.
Battalion’s final assault on Giropa Point, one sniper killed two officers, a runner and a machine-gunner in a matter of minutes before he was killed himself. The Japanese were also extremely patient. In some cases, they would allow advancing troops to pass their positions and then fire on their flanks or rear. The Australians referred to this tactic as “lying doggo”. Captain Angus Suthers of the 2/12th Battalion recalled one particular Japanese marksman at Buna:

Their snipers were bloody good! ... there was one bastard who laid doggo the whole of New Year’s Day, and on the second, he shot one of our blokes ... he let the whole of the bloody fight go on for a day!

The Japanese also quickly adapted to tackle the Australian tanks. They were very proficient in the use of magnetic mines and petrol bombs, and fearless in attacking the tanks at close quarters. They used fallen palm logs to make anti-tank obstacles, and stumps hidden by undergrowth also proved effective against advancing tanks. Even cleverer was their use of fallen palm logs to appear as false cover at Gona. Fallen logs were positioned to look like cover for attacking soldiers, but were actually set up to be enfiladed from concealed firing positions.

Despite their tenacity and ingenuity in defence, the Japanese could not hold out when faced with chronic shortages of food and medical supplies, nor with rampant diseases. The difficulties in resupply became apparent in early December, but were most severe by January 1943. The average rice ration fell from 360 ml in December to 40–80 ml during January. The last remaining defenders at Sanananda did not receive any rice rations after 8 January. Japanese soldiers were constantly hungry, either scavenging food from their comrades or from corpses. On 31 December, Private Wada collected his squad’s rations: “One sardine between five men, one handful of dried vegetables, powdered soy bean sauce, 2 Go of large beans and 5 Shaku of rice”, which was to last the men several days. Private Yori-ichi Yokoyama was also at Sanananda. He described himself and his comrades as “all skin and bone as if our stomachs were stuck to the inside wall of our

92 Brune, A bastard of a place, p. 542
93 Brune, A bastard of a place, p. 366.
94 Capt Angus Suthers, cited in Brune, A bastard of a place, p. 543.
95 Collie and Marutani, The path of infinite sorrow, p. 212.
96 Bullard, Japanese Army operations, p. 231.
97 Pte Kiyoshi Wada, cited in Paull, Retreat from Kokoda, p. 302. One Shaku is equivalent to 18 mm.
backs”.

It is therefore unsurprising that many of the Japanese soldiers resorted to cannibalism, though with reluctance. Private Kokichi Nishimura believed that “no one who was at Giruwa [Sanananda] could have survived that siege without eating human flesh ... It was eat or die.” Japanese soldiers would carve off portions of soft flesh or liver from the bodies of friend and foe alike. Allied soldiers who discovered this practice at Sanananda were greatly angered by it.

Weakened by disease and starvation, they could not survive long on such rations, but they continued to fight in the hope of being reinforced. They remained steadfast in their will to fight to the end – Corporal Tanaka wrote shortly before he was killed, “We have not eaten for over a week and have no energy. As soldiers, we are ready to die gallantly.”

The Japanese also ran short of medical supplies for the treatment of wounds and disease. Their equipment rusted quickly in the tropics and medical officers were overwhelmed by the number of cases to deal with – over half of the defending force was suffering from severe malaria. The constant artillery and air bombardments prevented the transport of sick and wounded out of the front line. The bunkers became the place where most Japanese soldier ate, slept, defecated and died. The Japanese could not bury their dead, and the battlefield became littered with corpses, floating in the swamps or on beaches, bloated and decaying. The 2/16th Battalion war diary records that at Gona, “In one dugout rice had been stacked on enemy dead. More Japs had died lying on the rice and

---

100 Collie and Marutani, The path of infinite sorrow, p. 257.
102 Bullard, Japanese Army operations, p. 213.
ammunition had been stacked on them again.\textsuperscript{103} Some Japanese soldiers even fought in
gas masks because of the stench.\textsuperscript{104} The all-pervasive stench of death is a common
recolleciton of the beachhead battlefields. Private Ted Beechey of the 2/12th Battalion
recalled the “constant stench of decaying bodies”, and that “one could almost taste death
in the drinking water”.\textsuperscript{105} In the end, their defiance was for nothing, but the feat of the
Japanese defenders was truly remarkable.

**Conclusion**

The Japanese eventually issued orders to withdraw on 13 January 1943, though
many stayed on to fight and buy time for the withdrawal. Some were evacuated by barges,
though many others made their way on foot.\textsuperscript{106} On 22 January concerted Japanese
resistance at Sanananda ended. The Allied campaign had not gone as anticipated, but it
had nonetheless achieved the strategic objectives intended. And MacArthur had his great
victory. The Japanese presence in Papua had been almost completely eliminated, with the
3,000 fugitives gradually trickling back into New Guinea. The areas which had been
secured were to become major bases for future Allied operations. Buna and Oro Bay were
quickly developed into ports which helped to supply operations at Lae and Finschhafen
later in 1943. The hastily constructed airstrip at Dobodura became a major airbase which
allowed Allied air superiority to be extended into the Pacific and ended the challenges
posed by operating from behind the Owen Stanleys. Herring later wrote to Eichelberger
that “Buna–Gona was the first real step to driving the Jap out of New Guinea and New
Britain. If we had failed, the edifice could never have started.”\textsuperscript{107} The campaign had
proved to be a massive learning experience for the Australian and American forces
involved. Many valuable lessons about jungle warfare, small unit tactics, the role of
aircraft and artillery in the jungle, and infantry–tank cooperation were learnt during the
campaign and were put into practice in later operations. There were also innovations in
communications, unit formations and assaulting enemy emplacements. These lessons

\textsuperscript{103} War diary, 2/16th Battalion, 9 December 1942, AWM52 8/3/16.
\textsuperscript{104} Collie and Marutani, *The path of infinite sorrow*, p. 215; War diary, 2/16th Battalion, 8 December 1942, AWM52
\textsuperscript{105} 8/3/16.
\textsuperscript{105} Letter, Pte Ted Beechey, 2/12th Battalion Association, PR00570, Item 7/9.
\textsuperscript{107} Lt Gen E. Herring to Lt Gen R. Eichelberger cited in Horner, *Crisis of command*, p. 263.
came to form the core of doctrines and tactics taught at the Australian Training Centre (Jungle Warfare) at Caungra, helping the Australian army become the most renowned jungle fighting force in the world. There was no desire to repeat the bloodbath of the beachheads again either, as operations were designed to force the Japanese to withdraw rather than encircle and annihilate them. But the victory had come at a terrible cost. Australian battle casualties numbered 240 officers and 3,230 other ranks. The veteran Australian units which had entered the campaign returned from it a shell of their former selves. The untried American troops had also suffered heavily in their limited fighting role, with 687 men killed in action and 1,918 wounded. Japanese losses were even greater. While exact estimates are difficult, it is reasonable to assume that somewhere around 7,600 Japanese soldiers did not return from the beachheads.

The beachhead battles were a strategically important victory but the operations themselves were a terribly costly affair, the result of persistent pressure exerted on commanders by MacArthur and his ignorance of the realities of fighting on the ground. The commanders and soldiers fighting the battles were faced with a complex tactical situation which they had not experienced before and for which existing tactics and doctrines were not applicable. It was first and foremost an infantryman’s fight, and it is these men who bore the brunt of the cost. The battles of Gona, Buna and Sanananda were not easily forgotten by those who fought there, and therefore deserve to be recognised in Australian military history as the scene of some of the hardest and bloodiest fighting the Australian army was involved in during the war.