An Amphibious War

The sky arches above our heads, a sea of brilliant blue merging into an expanse of shining sand. On one side, the waters of the lagoon ripple gently on the sand; on the other, rolling breakers crash against the shore. A blazing haze of blue and yellow, it is a deceptively beautiful picture.

Eelam War IV was fought across several theatres, in the dense jungles of Mullaitivu and Madhu, in the rolling paddy lands of Mannar’s rice bowl, amidst the savannah and scrub of Vanni and across the dry, arid areas of the northern peninsula. What is not known is that it was also fought across a series of beaches and lagoons. Stretching from Chundikulam to Pudumattalan, this bleached and burning landscape of sand and water represents one of the most unusual theatres of the whole conflict.

This theatre was entrusted to the 55th Division under the command of Brigadier Prasanna Silva. Alongside the 53rd Division under Major General Kamal Gunaratne, the 55th had been part of the force which had broken out of the Jaffna Peninsula. Whereas the 53rd Division attacked across the land, the 55th hugged the coast. This area had always been sparsely populated, inhabited by a straggle of fishing villages, which the Liberation Tigers of Tamil Eelam (LTTE) had converted into a string of Sea Tiger bases. The objective was to deprive the guerrillas of their access to the sea and the division’s task was to work its way down the shore. It was tasked to fight on a narrow strip of land sandwiched between the sea and a series of lagoons.

This campaign was part of the multi-pronged strategy adopted by Sri Lanka’s Army Commander, General Sarath Fonseka, against the LTTE. In previous wars, the Sri Lanka armed forces had attacked only from one direction. This time, several operations were launched simultaneously on various fronts, something the Tigers never thought the army was capable of. While the 55th would work its way down the coast, two other divisions, the 53rd and 58th Divisions, advanced eastwards, across the land towards Puthukudiyiruppu, the last town on the coast. Once they had taken, their objective was to link up with the 55th. Meanwhile, another infantry division, the 59th, advanced through the jungles of Mullaitivu and Oddusuddan, stopping on the edge of the Nanthi Kadal Lagoon.

Pinning the guerrillas down on many fronts, this strategy denied them the breathing space they needed to gather their resources and build up their reserves. Not only was the LTTE committed everywhere, it was always on the defensive. In the past, the Tigers had always been able to rest and regroup and they had used this opportunity to counter attack. This time, however, the momentum was never allowed to slacken. Executed with a clear vision, an overriding sense of purpose and a driving will, this approach served to drive the guerrillas back, pinning them to a tiny strip of land, with the sea at their backs.

Operating in this environment required a very different way of thinking and fighting. The Tamil Tigers had cleared the area of its fishing population; so the land was completely empty. In one way, this made the business of fighting much simpler. There were no buildings, no fields, and no people to complicate the picture. There was also scarcely any cover, just long stretches of
burning sand which grew hotter and hotter as the day wore on. Dotted here and there were a few stumpy palmyrahs and taller, more slender coconut palms. Further away towards the land were patches of scrub and bushes. These clumps of vegetation, however, were full of thorny thickets and bristled with sharp and vicious needles.

A test of physical endurance, thirst was a constant factor. So was exhaustion. Everybody drank more than twice his ration of water every day, depending on what he had to do. There were no wells and every drop of drinking water had to be brought up from the rear. When the vehicles could go no further, it was carried up to the line. The sand was soft and your feet sunk in with every step. Every step became an effort, requiring more and more energy. The heavier the load, the more effort it took and the more tiring it became. Sweat was always pouring down your face and the helmet became a weight, pressing down on your head, your body armour a stifling, suffocating prison. You were constantly tired.

Fighting in this terrain required a much greater level of endurance and fitness. I wondered how one could maintain concentration and sharpness of mind when all one could think of was fatigue, thirst and growing exhaustion. It required a different mentality and a very different kind of soldier. I was told that in the jungle you can move much faster. It was also far less draining, for there was much more shade and you were not exposed to the same degree of heat. Fighting on the sand was ideally suited to the troops from Jaffna, who had by now become accustomed to living and fighting in conditions which were very similar. However, a soldier who had fought in a different theatre could not immediately be expected to function as well and took at least a month to acclimatise.

It was an infantry theatre, involving sand and water. Tracked and transport vehicles tended to plough into the sand and were constantly getting stuck. Even the tractors and their trolleys could only travel along lines of tin sheets laid out across the sand. These sheets had been cut from tin water barrels and used to create an impromptu road over the dunes.

Water was the other feature. The whole campaign was conducted across one body of water after another. It was not only a military factor, but a logistic and engineering challenge.

Here, the Tigers found themselves fighting a desperate, delaying war. Their defences were constructed so that they could be held by a minimum number of men. Commanded by Soosai, the leader of the Sea Tigers, the LTTE strategy was to slow down the army’s advance and make it pay a tremendous human cost. Putting their faith in the environment and their defences, they had calculated that anyone advancing on such a narrow front could do so only at the risk of enormous casualties.

Across this narrow strip of land, from the seashore to the edge of the lagoon, the Tigers constructed a series of embankments guarded by wide ditches and swathes of mines. For the most part, however, it was a killing ground, with little cover and even less shade. The ditches were between 8-10 feet deep, while the bunds were at least 12-15 feet high. Together, they made an effective obstacle. Anyone approaching had to first come across a bare expanse of sand, where they were open targets for those who held the bund. Upon reaching the ditch, they had to go down several feet and then climb back up in full view of the defenders. At the top of
the embankment was a screen of palmyrah fronds, at least five feet high. Making sure that the attackers did not have a clear view, these screens also afforded a degree of protection to the defenders.

Crowning each bund were several bunkers made from palmyrah logs. Many were so covered with bushes, branches and sand that in the glaring sun, they seemed to merge into the landscape. Acting as defence points, they anchored the whole position, commanding the line of fire. Despite the emptiness of the terrain, visibility was not always clear and it was difficult to spot movement and make out forms.

Here, across the dunes, the Tigers erected embankment after embankment. Crossing one lagoon after another, the 55th Division found itself waging an amphibious war, attacking line after line of defences on a heavily mined front, fighting off counter-attacks at night from the sea and across the lagoon. From Chundikulam to Pudumattalan, the LTTE put up as many as 14 bunds, each with a supporting series of trenches and other defences. Each one of them was taken by the 55th Division.

Mentality

Most of the men and nearly all of the officers in the 55th Division were veterans, many of them with long years of service in the Eelam War. A seasoned force, the Sri Lankan Army had gained from their previous experiences. Not only was morale consistently high, the mentality was now very different. Previously hesitant, hidebound and beleaguered, they were now confident, self-reliant and resourceful; this was the new Sri Lankan Army. It had been a remarkable transformation.

As we speeded through the Vanni, rattling along in a Buffel armoured personnel carrier, I asked my escort about the change. Although he was only 26 years old, the lance corporal in charge of the Buffel was also a veteran of the Eelam War. In his eyes, the biggest difference of all was the leadership. "Now there is a proper leadership, we have confidence." This was the foundation. This belief in the leadership, both political and military, ran all the way through the ranks. Breeding a sense of confidence and trust, it revolutionised the whole atmosphere. "Earlier, we did not know where we were or what we were doing. Now we know what we are doing."

The other crucial factor was training. This was the general consensus amongst nearly all the senior officers spoken to. The army commander himself was a seasoned campaigner, who had fought in almost every theatre. Learning from the failures of the previous conflict, he completely overhauled the training. "He was determined to fight differently, to do something which the guerrillas could not face." Instead of the large formations which they had used in the past, General Fonseka adopted the idea of fighting in small groups. The four-men and eight-men teams became the core of his new strategy. "Those days, we always advanced in battalion strength. We would advance for about two kilometres and then wait for artillery support. Now,
we got used to going much further forward by ourselves; sometimes we would go out more than eight kilometres in a day, sometimes twelve. The enemy didn't know where we would be or what we would do."

Introducing a concept known as Special Infantry Operations (SIO), General Fonseka concentrated on enhancing the skills of the ordinary infantryman and building up his confidence. The infantryman was now trained in marksmanship, first aid, handling high explosives, calling in artillery support and air strikes. By developing the capability of the infantryman, SIO made him more assured and self-reliant. "We do everything to build up confidence. If you are confident, you feel you can win." Making the ordinary soldier fitter and stronger, it also gave him new levels of endurance. This brought with it new thinking and a new way of fighting. In the past, they had relied heavily on the special forces, depending on them for reconnaissance and looking to them to make the breakthrough. Now the infantry became used to going forward on its own.

This process also had the effect of devolving the command process. In the past, the emphasis had been on the platoon, a unit of about 30 men. As a result, everything had revolved around the platoon commander. A new system – Advanced Infantry Platoon Training (AIPT) – encouraged officers and men to work together. Training was now done section-wise. As more and more emphasis was placed on the section, it was the section leader who took the responsibility. This was a break with the traditions inherited from the British. Previously, it had been the officers who had made all the decisions. Now everyone was involved, both men and officers. Fostering a sense of participation at every level, it encouraged initiative and innovation all the way down the ranks.

As the capability of the ordinary infantrymen gradually expanded, they began to train to do things which the Sri Lankan Army had never done before. One of these was to fight at night. One of the hallmarks of this theatre was that nearly all the major operations were carried out at night. From its previous experience, the LTTE had never expected Sri Lankan soldiers to fight in the dark and when they did, they were taken by surprise. In the past, it had been the LTTE who had struck at night and they had come to take the army’s vulnerability for granted. Now, as darkness fell, it was the guerrillas who found themselves on the defensive.

Another practice which the LTTE had come to take for granted was that any army operation would only last for a fixed period of time. However, new levels of training and endurance enabled the infantrymen to sustain hostilities for much longer than before. Previously, the army had only conducted operations for a limited period; now they were able to continue for five or six days at a time. This served to maintain a constant level of attrition. Wearing the guerrillas down and exhausting them, it denied them the time they needed to rest and regain their strength.

**Commander**
Like most of the senior commanders in the Sri Lanka Army, Brigadier Prasanna Silva was still in his mid-forties. Calm and composed, he had a reputation as a thinker. As a former special forces commander, his approach was sometimes quite unconventional. As part of his philosophy, he tried to involve everyone in his plan of operations. Determined to see things from the ground up, he made it a policy to consult with the company commanders, going right down to the section commanders when necessary.

As part of his way of working, each battalion was asked to maintain a model of its own area of operations. This model was updated on a daily basis as each section leader gave his input. As it changed, the section leader himself could see how important his role was for the whole battalion. The effect of this was radical, completely transforming the chain of command on the ground. From being merely a component in the whole process, the section leader became a vital part of it — its eyes, its ears and, sometimes, its brains.

This served to enhance the overall knowledge and combat power of the entire division. As a result of the section leader’s involvement, the General Officer Commanding (GOC) knew exactly what was happening on the ground. He had a specific idea of the main factors leading up to the attack on a particular area or a particular bunker, how to increase fire support, for example, when and where. The GOC’s involvement meant that the section leader had the maximum support and firepower behind him. This enabled the GOC to deploy all the firepower, intelligence and technology at his disposal in support of the men on the ground. According to Brigadier Silva, what really mattered was not the volume of fire which he was able to command, but how accurate it was. Only then was it really effective.

This way of working completely changed the mentality of the Division. Giving rise to a much more unconventional and far more decentralised method of making decisions, it heightened the GOC’s ability to read the battle. Not only did this prove effective in military terms, it also saw a sharp reduction in the rate of casualties, with the number of dead and wounded declining by as much as 60 per cent.

**Chundikulam**

The Chundikulam Lagoon was the first of the lagoons which the 55th Division had to cross. A broad stretch of water more than two hundred feet across, it was one of the places where the sea flowed into the land. Cutting into the golden sands, it looked calm and tranquil in the afternoon sun. The mouth of the lagoon, however, concealed strong surging currents and, in some places, it was between 15 to 25 feet deep. Seen from one side, it was almost like a moat, guarding the LTTE defences on the other side.

The LTTE had expected an attack on a wide front, going down the side of the lagoon, where the waters were calmer and shallower. As a result, their bunkers and trenches stretched inland along the lagoon shore. To protect this line, they laid claymore mines and improvised explosive devices (IEDs). Known as “trapping,” these were booby traps consisting of anti-personnel mines, bits of shrapnel, unexploded artillery and mortar rounds, all wired together with yards of fishing line. These lines could hardly be seen and a faulty touch or a foot misplaced was enough
to set off a whole series of explosions. Living up to their name, they were veritable deathtraps, causing the largest number of casualties. Secure behind these natural and man-made defences, the LTTE sat and waited for the conventional attack which they felt had to come.

Instead of attacking on a wide front, the assault was launched across the narrowest and deepest part of the lagoon, the weakest point of the LTTE defences. As a result of their night training, the troops felt confident enough to attack in the dark and the operation started at around 6.30 p.m., the moment the light faded.

Using teppan, the light dug out canoes favoured by the fishermen, the government troops began building a bridge across the mouth of the lagoon. The assault was spearheaded by the special forces, who crossed in boats. Landing on the other side, they provided cover to the men behind them. Two engineers with T-56 rifles went first, getting down into the current. Two teppans at a time were placed in the water, then another two. With the waves swirling around their shoulders, the engineers carried on lashing the sections together, two by two. As they extended the bridge further and further out into the lagoon, the current surged and eddied about them, becoming deep and shallow at turns. One of the biggest challenges was anchoring the sections securely, so that they were not swept away by the tides.

These activities were cloaked by the darkness and masked by heavy fire support. Mortars lining the army side of the shore opened fire. They were supported by tanks in the rear and the newly introduced multi-barrel rocket launchers (MBRL). The MBRL made a huge difference in firepower, giving the Sri Lankan Army an advantage which it had not possessed before.

Planks were then laid across the floats, creating a heaving, swaying and occasionally sinking bridge across the water. By midnight, they were ready to cross. It was an act of total improvisation, done under fire and executed in total darkness. With the engineers taking the lead once more, they gradually worked their way up the heavily mined beachfront. The Tiger cadres held on for 6 hours, from 8 at night until 2 in the morning before abandoning their positions. Bold, imaginative and risky, the whole operation had taken the Tigers by surprise.

Within a few days, the surging current had swept away the teppan bridge and a new one had to be constructed. This time, they used fishing boats, but this too was washed away and another pontoon bridge was constructed. This structure, however, managed to survive.

Chalai

At Chalai too, the lagoon ran deep into the land. Although it was heavily mined, the narrowest front was chosen yet again. Once again, the crossing was made under fire and at night. Although the current here was even stronger and the water choppy, the 55th Division made the passage by foot and by boat. The whole area was heavily defended, with bunkers and trenches that they could hardly see. It was also covered with "trapping".

This time, two eight-men teams were sent forward. They were led by the team leader, who was also the section leader. Before the assault, indirect fire was called in from artillery and mortars in
the rear and as they went forward, they were supported by heavy machine guns. With an eight-men team, four men usually went ahead while the other four remained behind. Acting as a reserve, their task was to supply ammunition and deal with any casualties. The first two men were usually charged with the job of scouting and clearing the area. The leader carried a T-56, the second a machine gun, while the remaining two fired rocket-propelled grenades. As they came closer, they hurled the grenades by hand.

Advancing along an area only 20-30 metres wide, they felt their way with their hands, clearing a path in the dark. Relying purely on their instincts, they moved slowly forward. It was an act of sheer resolution and immense will. By morning, they had established themselves near the mouth of the lagoon, outflanking the line of defences which had been built along the shore.

The speed of the action and its boldness had succeeded. Once more, they had caught the guerrillas unawares. The roles, it seems, were reversing. In the previous Eelam War, it had been the army that had put to faith in fixed defences. Now it was the LTTE who believed in fortifications, which they never thought could be taken.

Here there was no bridge of boats. The tide was too deep and too strong and every attempt to construct one had been washed away. As a result, the troops were ferried to and fro in boats. All the vehicles and heavy equipment, however, were transported in makeshift rafts or ferries made up of planks, barrels and iron girders. These rafts became a lifeline, linking up the various components. As the division advanced, everything – vehicles, supplies, men, munitions, even ambulances – had to be ferried across one stretch of water after another.

**Civilians**

As it advanced further and further forward, the 55th found itself having to deal with escaping non-combatants. In this theatre, people fled by sea, coming across in small boats, which put out from Tiger-controlled areas at night. The majority of these flotillas headed south towards Mullaitivu and Pulmoddai, where they were picked up by the navy boats patrolling those waters. A small number, however, turned north towards Chundikulam and Chalai.

Distinguishing between escaping civilian vessels and Sea Tiger squadrons was one of the challenges which faced the troops along the sea shore. The fact that it took place at night made this task even more difficult and dangerous. The lack of visibility, the uncertainty and the ever present threat of infiltration made the consequences of a wrong decision even more dire.

The use of radar, however, allowed the army detachments to observe the speed of the oncoming vessels. This was crucial as it enabled them to decide whether the oncoming boats were Sea Tigers or civilians. Most civilian vessels had engines whose capacity was between 9-12 horsepower. As a result, their average speed was relatively slow and steady. The Sea Tiger boats, on the other hand, had engines which ranged up to 40 horsepower. This meant that
they could travel at a much greater speed, almost four times faster than the average civilian boat.

As the boats approached the beach, flares were sent up. Together with the use of night vision aids, these helped establish who the occupants were. A separate unit composed of military police, intelligence personnel and women soldiers met the boats as they landed. Their task was to screen the arrivals, to talk to them, to see who they were and to find out if they were carrying any equipment.

The most urgent task was meeting the needs of these refugees. The majority were exhausted, hungry and terribly dehydrated. Many had small children with them and some were wounded and in need of medical attention. Everyone was given water or tea and the division’s supplies were used to provide a hot meal on the spot. All the injured who could be treated then and there were attended to by army medical officers. Military vehicles of all kinds were brought right down to the beach to carry the refugees inland and buses were then procured from somewhere to take them towards Jaffna.

At the same time, as fighting a battle, the 55th Division found itself conducting a quite separate security, logistic and administrative operation to cope with the civilian influx. As with the 58th and the 53rd Divisions, this became an essential part of their progress and perhaps, an indicator of their success.

Once they had succeeded in crossing over the lagoon, the 55th Division still faced the challenge of taking one fortified bund after another. In the past, the army had relied on the frontal assault. However, this had resulted in huge casualties. To reduce the number of dead and wounded, Brigadier Silva adopted a new method to approach the enemy line. This was the digging of trenches.

The 13th bund was taken on the morning of my arrival. The way it was done appears to have been typical. The trenches themselves were cut at an angle to the enemy bund and took the form of a zig-zag. Protected by screens made from railway sleepers, they would begin digging at 7.30 in the evening and continue till 2 in the morning. Thirst was the biggest challenge and even at night, the diggers found themselves drinking water every 15 minutes. Despite this, they were able to continue throughout the night. It was a sign of just how fit the new infantryman had become and how much he could endure.

It is an interesting historical irony. In World War I, trenches had been used as form of defence. Almost a century later, in Sri Lanka, they were being resurrected as a form of attack. By this method, the attackers were able to neutralise the effect of the enemy entrenchments and the killing field which had been created in front of them. Digging under cover of darkness, shielded by screens and backed by artillery fire, they were able to come closer and closer to the enemy line. Such was the speed at which they worked that if the soil was soft, eight men could dig a
foot trench in less than half an hour. Although exhausting and laborious, it proved very effective, keeping casualties to a minimum.

Working their way along the sides, they did their best to outflank the LTTE positions. By dawn, they had almost reached the ditch. The men who had been digging went to the rear where they rested for five hours. The fresh troops who had come to the front, now took over. Seizing the edges of the bund, they forced the guerrilla cadres to withdraw. The middle parts, however, remained uncleared and it was here that the attacking soldiers were most vulnerable to sniper fire from above.

Many of these lines were also linked to subsidiary trenches in the rear. They extended back into a whole series of supporting trenches, points, shelters and sub-positions. These contained first aid stations, artillery shelters and bunkers, often as not leading to the next bund. Thus, the business of driving the enemy out usually took the best part of the following day. This tended to be the general pattern. The bund was taken during the night or in the early hours of the morning, then held and gradually exploited during the day.

Even after they had taken the enemy position, there was the constant danger of infiltration. This usually happened at night. As they lost more and more ground, the LTTE made desperate attempts to regain the initiative. The counter-attacks came from the sea and across the lagoon. Fleets of highly charged small boats would head out from the remaining Sea Tiger bases further down the coast and speed towards the land.

On one night, an attack was made by a flotilla of more than 25 boats. Firing as they came, they rushed towards the shore at tremendous speed. Most of them were destroyed before they reached the land by the infantry posted along the coast. The others turned and fled. However, had the landing succeeded, the entire front would have been undermined. To counter this threat, a line of points and bunkers had to be built right along the coast. As the division forged ahead, this line gradually progressed further and further up the sea shore.

As we returned to camp, the night sky lit up with flashes of red and streaks of orange. There was the sound of firing together with the muffled burst of the heavy machine gun. Tiger boats were picked up on the radar travelling at high speed towards the land. One-by-one, they were destroyed and a voice could be heard on the radio, calling hysterically for help in Tamil. It was the voice of the commander of the last Tiger boat. His pleas became more and more frantic. Finally, he began to give up: "If you donsend help now, I am going to commit suicide."

Later that night, Soosai himself came on the radio. Although he was the commander of the entire sector, he hadn't even known that the defences had fallen. It was a sign of the growing disarray within the LTTE ranks. Here, on this front, they were finally losing control. We listened as the news was broken to him. His despair echoed that of the Sea Tiger cadre whose voice we had heard earlier. "Now we are finished," he said.

At the same time, counter-attacks were also made across the lagoon. To mask the sound of their movement, the LTTE used tape recordings which they played as they moved forward. These gave out a series of noises, giving the impression that a large body of civilians was on
the move. There would be the sound of people speaking loudly, women talking and children crying. An ingenious psychological tool, it was designed to deceive the watching sentries, lulling them into a false sense of security.

To guard against this, the advancing troops often had to stand watch throughout the night, looking out from points they themselves had built during the day. As the sun set over the lagoon, a line of young soldiers stood in the shadow, looking out from newly-made sand bunkers. Although each point had two soldiers, both of them were encouraged to stay up throughout the night. "I am worried about infiltration," said the officer in charge. "It's much better that both of them stay up now, that way they can keep each other awake. Otherwise, one of them might fall asleep. They can sleep tomorrow."

The role of the Sri Lankan Air Force (SLAF) in this particular theatre was to support the operations on the ground. Air strikes were normally called in to take out points which could not be seen or reached from the ground. In this context, the unmanned aerial vehicles (UAVs) played a vital part in locating and targeting these emplacements. Whirring overhead, they provided the eyes that the troops on the ground had not possessed before.

However, the LTTE’s defences were so well constructed that the SLAF’s Kfir jets had to fly very low in order to be effective. Most of the time, they were flying in so low that they were exposed to small arms fire from the ground. Nevertheless, by doing so, they were able to take out strong points buried deep in the scrub and sand. The targeting at times was specific. Stumbling along a line of trenches hidden in the sand, enveloped by bushes and thorny scrub, I wondered what good aircraft could do in this kind of environment. Minutes later, the scrub widened to reveal a round clearing and a crater in its middle. I was told that there had been a bunker there.

**Defences**

One of the problems with studying this conflict was that the situation changed so quickly. As it changed, so did the physical evidence and defences were dismantled or reorientated as one side advance and the other withdrew. Once the Chalai Lagoon had been crossed, the troops were able to work their way into the northern reaches of Pudumattalan. Here at Pudumattalan, the line had just been taken and it was possible to see many of the defences while they were still in place.

The most striking thing about those fortifications was the tremendous ingenuity which had been exercised. Although the resources might have been limited, the thinking behind them was careful and imaginative. This was combined with a highly developed awareness of the environment, which was used for protection, disguise and surprise. Faced with a thinking enemy, who was a master of camouflage and concealment, the infantryman had to think on his feet in order to remain alive. It was not always the easiest thing for a conventionally trained soldier to do. However, as the Sri Lankan infantryman learned, it became the key to his survival.
Trees and bushes were also used for defence and, on some occasions, for attack. The main raw material was the palmyrah tree, which was utilised in almost every conceivable way: its leaves, its trunk and sometimes even the tree itself. In some places where there were not enough palmyrah logs to shore up the bunkers, boats were also used as a foundation. Positioned underneath the palmyrah logs, they added strength to the roof, which was thickly covered with sand to deaden the effect of the shelling. This ensured that the structure would not collapse under the weight of the sand.

This ability to improvise was one of the hallmarks of the LTTE's thinking. As the scenario changed, so did their fortifications. As the guerrillas retreated, the gap between the sea and the lagoon narrowed. Adjusting to the changing circumstances, many of the ditches guarding the embankments were cut to take advantage of this fact. Some were so sited that the lagoon waters would flow in, while others were designed to join the waters from the lagoon with the incoming tide.

**Armour-plated Bunkers**

In sharp contrast to those constructed by the army, most of the LTTE bunkers and trenches blended into the sandy environment. Some of these bunkers were little more than single manholes, carefully calculated to combat the way artillery shells fell. To add further protection, the inside of the hole was plated with strips of iron, creating a tiny armoured bunker. It was, in effect, a metal-plated box buried in the sand, with eight inches of metal plating above the surface. The top was covered with a layer of coconut fronds mixed with sand, making it almost invisible from the outside. When the artillery rounds began, the cadres would jump into these pits. Four and a half feet to five feet deep, they were so small they could only be destroyed if a shell actually fell into the hole.

These defences proved to be extremely effective. "You don't know where they are, and you can't even see them until you are right on top of them."81 Once the artillery barrage was over, the cadres emerged unscathed to fire at the advancing troops. With that type of bunker, the trajectory was so low that it was very difficult to gauge the direction of fire, let alone see it during the day-time. As long as the cadre remained where he was, he was almost invisible. As a result of defences like these, a number of troops sustained leg injuries. Nearly all of them were totally unexpected; "The first you know is when you are wounded in the leg."82 The only thing that they could do was to crawl as close as possible, hoping that they would not touch a trip wire. All they did was to fire towards the sound, threw grenades and send off RPGs in the general direction. Only at night, when the fire flashes could be seen, did the troops have any idea of where the bunker was.

**Tree Bunkers**

Behind the entrenchments guarding the lagoon was a patch of open land. In the midst of this expanse was a thicket. A tangled mass of branches, thorns and bushes, it was so thick at times
that you could hardly put your hand in. Inside were bits of clothing, discarded wrappers, tins and empty bottles. It was a perfectly concealed defence point, commanding the open ground. Designed to catch those coming through the scrub unawares, it reflected the combination of careful thinking with a painstaking use of the terrain which characterised the LTTE. The cadre who held this point could not be seen from the outside and the bush acted like an invisible bunker. Anyone coming through into the clearing relaxed momentarily, for all he could see was just another thicket. Brilliantly conceived, it was a perfect utilisation of two of the principles of defence – surprise and concealment. Even when the attacker did recognise it for what it was, the approach was far from easy, for the ground in front of the thicket was set with mines.

Sniper Points in the Air

The palmyrah trees which grew on the dunes also served as platforms for snipers. Commanding the space above the defensive lines of trenches, bunds and ditches, they were ideal vantage points from where one could see the whole line. This was ingeniously done. The trunk of the tree acted as a shield and a chair was tied to it. Sitting in the chair, the sniper's body was protected by the trunk while his legs dangled on either side. A plank fixed further up the trunk acted as a platform for the sniper to rest his rifle on, while below, another plank was fixed for the cadre to place his feet. Not only was the sniper hidden by the tree and the overhanging fronds, silhouetted against the glare, he was almost impossible to spot from the ground. For troops going forward, the natural tendency was to look straight ahead – it hardly ever occurred to anyone to look up as well. A tremendously inventive bit of thinking, cheap and easy to make, it was also devastatingly effective – from where a single sniper could pin down the whole line of advance.

Mines and Booby Traps

As the LTTE had its own mine manufacturing plants, the Tigers were able to turn out all kinds of mines in enormous quantities. This abundance enabled them to use mines almost at will and almost every inch of land was mined. These mines – claymore mines, anti-personnel mines, booby traps – were a key element in the LTTE defences. Linking up the various lines, they delayed the pace of any advance, forcing the oncoming troops not only to fight but to clear them as they came. The LTTE thought that this would restrict the avenues of attack, confining it to certain places and certain areas. Setting great store in this deterrent effect was how they planned their strategy.

To an outsider, the part played by the engineer in this conflict was not always immediately apparent. However, as it unfolded around me, I began to realise how important it was. In this kind of warfare, with its heavily mined and booby-trapped terrain, the role of the engineer was crucial. It was the engineers who went first. Clearing mines under fire, it was they who opened a path for the infantry. Only when they had cleared the ground, could the infantry advance.

Lacking sophisticated equipment or machinery, the 55th Division's engineers relied heavily on
their experience and their instincts. Depending on surprise, they worked by stealth, crawling on their bellies through the undergrowth. Most of the LTTE mines were generally hidden an inch or so below the surface. While the infantry stood guard, they would first feel the surrounding area, touching very slowly with their hands. Looking from the top, they would try to make out the shape and gently dig around it.

In areas which had been cleared, the engineers would try to improvise a Bangalore torpedo. This was the standard way of detonating mines and consisted of a long metal tube filled with explosives. However, instead of the factory-made metal pipes, they would improvise by fitting together lengths of plastic S-Lon tubes. Once it was exploded, the Bangalore torpedo would trigger off all the mines in the vicinity, creating a safe lane, two to three feet wide, for the infantry. The Bangalore torpedo normally had a 30-second fuse, enough time to get as far as 50 metres away. Once it had been set, the engineers would turn around and run as fast as they could along the path which they had just cleared.

As I watched this process taking place, I was reminded that it was done under fire almost every day, by men who were usually working almost "blind." This was how the 55th Division had advanced. I was also told that of the many engineers who sustained injuries, most lost eyes, arms and legs. This was the price which they had to pay.

While claymores were generally more straightforward to deal with, "trapping" was another matter. Barely visible in the undergrowth, from a distance it looked more like discarded bits of rubbish – pieces of tin, little boxes and bits of thrown away metal. Only the lines leading into the tangle of shrubs and bushes gave them away.

An adaptation of conventional technology, utilising the debris of war, it was cheap and easy to set. It was also enormously difficult to disarm, as nobody could be sure where it began and where it ended. Immobilising large areas of territory, it made the business of moving forward painstaking and deeply fraught with danger. Fearing that detonation would lead to one explosion after another, the engineers would not touch it. As a result, entire sections were just left in place, virtually rendering whole areas out of bounds.

Nearly all the assaults were launched across the most heavily mined areas. Defying accepted military strategy, the Sri Lankan Army attacked the enemy’s strongest points, not his weakest. This was what took the LTTE by surprise. In this theatre, they had calculated that the strength of the entrenchments would keep the army at bay. The failure to hold this northern front put enormous pressure on their other defences, enhancing the thrust of the divisions advancing towards Puthukudiyiruppu.

**Conclusion**

My impression of this theatre belies the general picture which has been painted of this conflict. Most authorities talk of the use of massive force and overwhelming power, depicting a
relentless, all-consuming bombardment, which swept away everything in its path. What I saw was a painstaking infantry operation, conducted in the face of all kinds of obstacles, by soldiers who had to think on their feet to survive.

In the final analysis, what this study proves is the continuing importance and relevance of infantry. Despite the considerable firepower which the Sri Lankan Army was able to bring to bear in terms of artillery and air power, it alone was not enough. Withstanding both artillery and aerial bombardment, the defenders remained in place, merely disappearing into their bunkers while the shelling and the bombing lasted. Against well constructed, carefully sited and heavily defended fortifications, technological supremacy and superior firepower only had a limited effect. What was required was close infantry combat. In the end, it was training, combat skill and imaginative thinking, which drove the LTTE cadres from their entrenchments.

As I stood on the wall of the 14th bund, the soldier I was with turned to me: "In this division, we are not told, go and do this, go and get this. We are asked what we can do and how we can do it. We took two bunds today without losing a single man. Where else will you see that?"105 It was a revealing moment. An indication of morale, confidence and pride, it was also a vindication of the philosophy of command.MANEKSHAW PAPER No.13,2009.

by SinhaRaja Tammita-Delgoda