

REACHING OUT

OPERATION FLYING EAGLE

SAF Humanitarian Assistance after the Tsunami



By courtesy of SPH - The New Paper. Photo by Mohd Ishak Samon.

A Republic of Singapore Air Force C-130 Hercules transport plane from 122 Squadron warms up at Sultan Iskandar Muda Airport. The earthquake put the airport's control tower out of action and aircrews had to keep a sharp lookout for other aircraft and helicopters that streamed in and out of the congested airport. Another hazard: civilians who crowded grassy areas fringing the airport's flightline and taxiways, hoping for a flight out of the ruined city.

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RSS Endurance (207), *RSS Endeavour* (210) and *RSS Persistence* (209) off the coast of Meulaboh in western Sumatra on 18 January 2005. This photo captures a historic moment for the Navy as it marked the first time all four Landing Ships Tank (LSTs) were deployed for operations outside Singapore. The fourth LST, *RSS Resolution* (208), was then in the Northern Arabian Gulf.

This book is dedicated to
the men and women in MINDEF
and the SAF who participated
in Operation Flying Eagle.

December 26, 2004 will be remembered by people around the world for years to come.

The powerful earthquake and tsunamis which struck that day wreaked destruction on a scale that had not been seen in living memory. Hundreds of thousands of people around the rim of the Indian Ocean were left dead or homeless. Our neighbour Indonesia bore the brunt of the disaster. Thailand was also badly hit, with tourists from Singapore among the casualties.

The scale of the disaster demanded a massive humanitarian response from the international community. There was an outpouring of sympathy from Singaporeans and a desire to help. Singaporeans from all walks of life and all ages did their part. Our proximity to the most devastated areas put us in a unique position to play a significant role in the disaster relief efforts. We knew that the Singapore Armed Forces could make a useful contribution. The magnitude of the disaster would require the SAF to carry out a mission on a larger scale than it had ever done before.

The SAF moved swiftly into action and launched Operation Flying Eagle. Standby teams were deployable within 24 hours, and teams which were specially assembled for the disaster assistance mission were ready for deployment within 48 to 72 hours. It was the largest operation that the SAF had ever mounted – with 1,500 personnel, 3 Landing Ships Tank, 12 helicopters and 8 transport aircraft deployed to Indonesia and Thailand. The SAF was able to respond quickly and effectively because of the readiness, professionalism and commitment of its people.

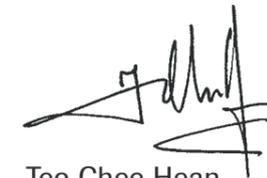
There was also smooth and effective cooperation between the SAF and its counterparts in Indonesia and Thailand in the disaster relief operations. This was possible because of the close ties and good mutual understanding and friendship fostered over many years of bilateral defence interactions and exercises.

Operation Flying Eagle owed its success to the hard work and dedication of the men and women of the SAF who were deployed for this mission – SAF Regulars, Full-time National Servicemen, and Operationally Ready National Servicemen working shoulder to shoulder. They worked together with their

colleagues from the Home Team and many willing volunteers. Their efforts helped restore the lives of the people of Meulaboh, Banda Aceh and Phuket. They rose to the challenge, carrying out their mission in a professional, speedy and flexible way. They showed competence, commitment and compassion. This is testimony to the motivation and calibre of the men and women in the SAF.

For every person deployed, there were also many who worked hard back in Singapore to plan, prepare, support, sustain and monitor each operation so that it was carried out successfully. The mission could not have been successfully achieved without their efforts.

This book is dedicated to the men and women in MINDEF and the SAF who participated in Operation Flying Eagle. They represent the spirit of all Singaporeans as they reached out across the ocean to help.



Teo Chee Hean,
Minister for Defence

Foreword



Nature's fury
unleashed



The death toll from the earthquake and tsunamis exceeds 150,000. We will never know the exact number. Many died unknown and uncounted, some in remote areas, others washed out to sea without a trace.

Prime Minister Lee Hsien Loong, 6 January 2005



■ **Sunday, 26 December 2004**

Brigadier-General (BG) Wong Huat Sern, Head of the Singapore Armed Forces' (SAF) Joint Operations Department (JOD), was enjoying a relaxing round of golf when his mobile phone vibrated.

He scrolled through the text message. It said that a tsunami had hit Phuket. The casualty estimate was 20 dead and 100 missing.

BG Wong did some quick arithmetic. With such numbers, he expected that the SAF's standby forces would be able to handle the disaster relief operation, if the SAF was activated.

His golfing buddy, BG Tay Lim Heng, Director of the Joint Intelligence Directorate, received the same message simultaneously. He came to the same conclusion as BG Wong – if a deployment order was issued, the SAF's C-130 transport aircraft and helicopters could reach Phuket within hours.

“We decided to carry on playing but kept our mobile phones close to us,” said BG Wong.

That was the last bit of recreation the two officers would enjoy in many weeks.

Tremors and tempers

Earlier that morning, at about 0900h, a Singapore Police Force (SPF) officer manning the 999 hotline received a call – a man reported that he felt tremors in his home.

Within hours, SPF officers had answered more than a dozen such calls, from people living in the eastern part of Singapore – Beach Road, Marine Parade, Siglap and Tanjong Rhu – as well as Toa Payoh in the central part of Singapore. Many residents of high-rise apartments said the tremors were mild. There were no reports of casualties or damage to property.

The advance party of the Singapore Armed Forces relief team bound for Aceh flew aboard RSAF helicopters along the coast of western Sumatra to see the damage for themselves. The killer waves had wiped out the entire landscape.



People, vehicles and other debris were sucked into the sea when the waves died down. Debris such as this minivan off Meulaboh posed a hazard to landing craft approaching the shoreline.

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The word *tsunami* is derived from two Japanese *kanji* characters which mean “harbour wave”. It was coined by Japanese fishermen who returned to their coastal ports to find the area around the harbour wrecked by the sea. Because they had not experienced any large waves in the open sea, the fishermen thought that the deadly waves were produced only within the confines of a harbour.



By courtesy of SPH - The New Paper.

While the police were fielding these calls, tempers were fraying at Changi Airport, as hundreds of travellers became increasingly frustrated by flight delays.

The travellers were told that their flights to resort islands in Thailand were delayed until further notice. Three flights to Phuket and one to Koh Samui, and two arrivals from Phuket, were delayed that day.

Strongest in 40 years

The mega-quake had struck deep under the seabed of the Indian Ocean at 0758h local time (0858h Singapore time).

Initially, the strength of the earthquake was recorded as 6.8 on the Richter scale. This was later revised to 8.5, then 8.9, and finally to 9.0. It was the most powerful earthquake since the 9.2 magnitude earthquake off Alaska in 1964, and the fourth biggest earthquake since 1900.

The epicentre lay some 160 kilometres off the western coast of Sumatra. Most maps pinpointed it as one neat spot. But the earthquake had actually radiated along a 1,200-kilometre long fault-line, running north-south. Geologists and seismic experts believed that it started 30 kilometres below the seabed, after part of the India Plate slipped under the Burma Plate.

Three-dimensional images of the seabed showed that the earthquake had caused the underwater canyon on the seabed to collapse by more than 10 metres. Comparing sonar images of affected sections of the fault-line against unaffected parts, geologists estimated that the earthquake had unleashed ocean sediments about 100 metres high, several kilometres along the seabed.

The sudden jerk in the earth’s surface and the movement of the seabed triggered several tsunamis that would kill hundreds of thousands in the next few hours.

The tsunamis travelled at 600–800 km/h in the open sea, about the speed of a jet liner. Barely noticeable in open water, the waves surged to heights of 20 metres when they reached the coast, and crashed in at speeds of 45–60 km/h. It was impossible for anyone to outrun them.

The disaster was so brutal, so quick, and so far-reaching that we are still struggling to understand it.

Kofi Annan, UN Secretary-General, 6 January 2005

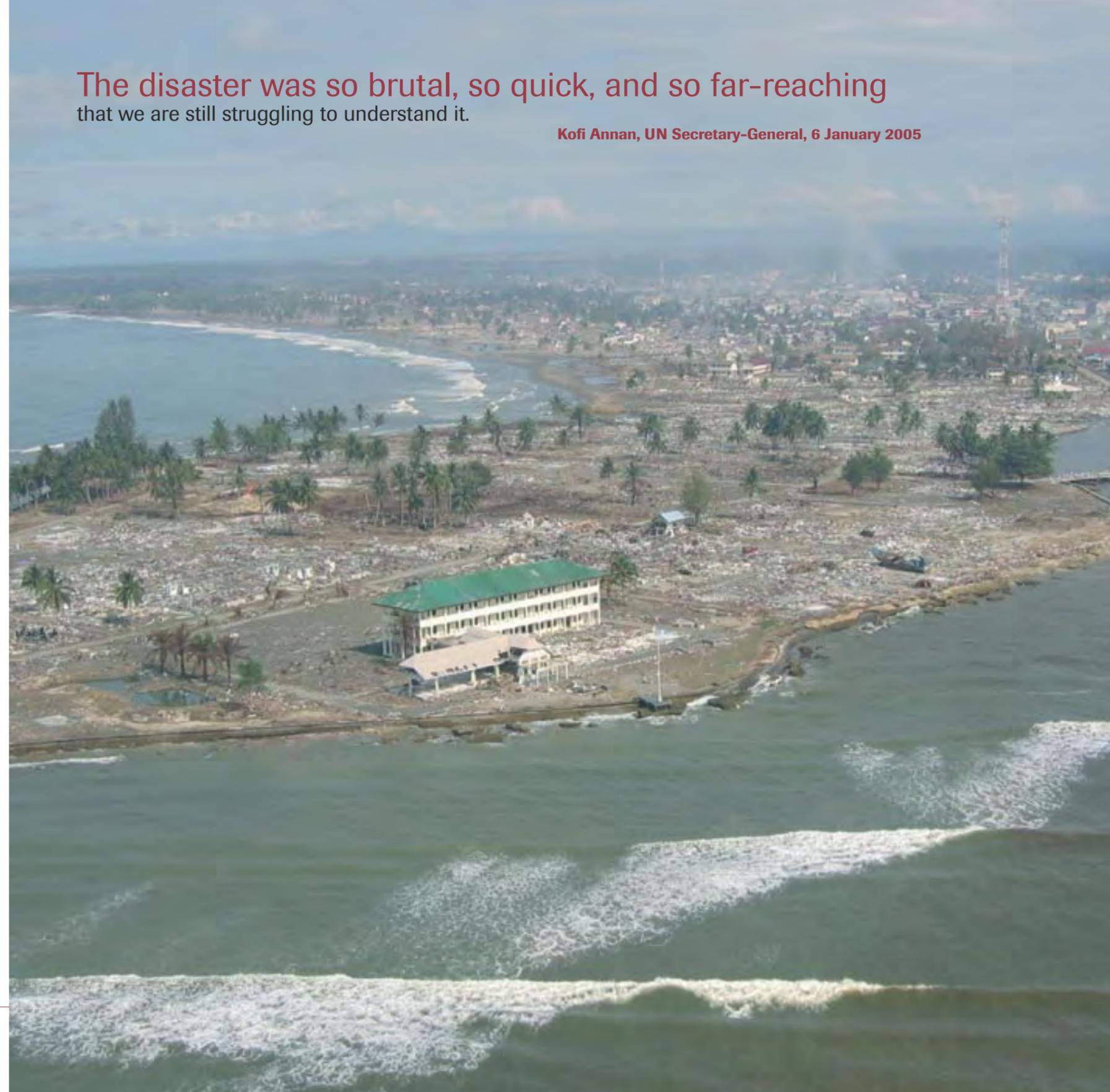




Photo courtesy of Agence France-Presse (AFP).

Killer waves moving at breakneck speed hit a Thai resort in the Andaman Sea as well as Malaysia's Penang Island.

The western coast of the Indonesian province of Aceh in northern Sumatra was hit by tsunamis 15–20 minutes after the earthquake. An hour later, the western coasts of Thailand and Malaysia were devastated. And within the next couple of hours, the tsunamis roared into Sri Lanka and India.

Much of the Indian Ocean's rim was bathed in brilliant sunshine that fateful morning. The fine, sunny weather had lured thousands of European tourists to the many beach resorts in the area, to escape the bitter European winter. It was the height of the holiday season.

Phuket, Thailand

Barely two hours' flying time from Singapore, Phuket is a popular holiday spot for Singaporeans. More than 1,000 Singaporeans were there when the killer waves struck on Boxing Day.

Before the killer waves crashed onto the beaches of Phuket and nearby islands, some people saw the sea retreating several hundred metres. The curious were drawn to check out the phenomenon, some to play in the mud and others to look at the stranded fish.

The tsunamis that devastated Phuket were filmed by scores of amateur cameramen who happened to be at the wrong place at the right time. The videos showed massive, two-storey high waves destroying places like Patong Beach. They showed the havoc and devastation – and traumatised tourists roaming the streets in swimwear, searching for loved ones. Such footage was played over and over in news bulletins around the world.



Banda Aceh, Indonesia

Runners had just reached the 10-kilometre mark in a city marathon when the earthquake rattled the bustling city of Banda Aceh. The earthquake and several aftershocks caused entire buildings to collapse, burying the dead and the living between layers of concrete rubble.

Rescue efforts began immediately, and television crews filming the marathon captured images of dazed survivors being pulled from the rubble.

Even as the city was counting the death toll from the massive earthquake, the killer waves charged in from the Indian Ocean. Houses on the shorefront were demolished. Another news clip showed a swollen river of planks and other debris sweeping down a city street. People trapped on floating debris scrambled for footholds as the gushing, muddy waters threatened to swallow and wash them away.

The double whammy of earthquake and tsunami brought down power and telephone lines, cutting off communications between Banda Aceh and the outside world.

Sultan Iskandar Muda Airport was closed because its control tower was damaged and part of the runway was flooded. The city's landmark, the grand mosque Masjid Baiturrahman, survived the waves, as did several smaller mosques and *surau* (prayer houses). These places of worship, still standing when everything surrounding them was flattened, served as the proverbial pillar of strength for the people of the shattered city.

Indonesian authorities estimated that almost three-quarters of the coastline of western Sumatra was hit by the tsunami. Small towns and villages along the western coast of Sumatra were torn apart. The scenic coastal road, with the sea on one side and padi fields on the other, was destroyed.



The coastal city of Banda Aceh bore the brunt of the tsunami, as it was located close to the epicentre of the powerful undersea quake. Satellite photographs show the damage caused on 26 December 2004.



The tsunami swept as far as three kilometres inland in many places. Fishing boats, tossed around like toy boats in the angry waves, were left high and dry when the waters went out.

“The damage is truly devastating,” said Major-General (MG) Endang Suwarya, the military area commander of Aceh, after flying over the west coast by helicopter. “Seventy-five per cent of the west coast – in some places it is one hundred per cent – is gone.”

Meulaboh, Indonesia

Meulaboh, a coastal town 150 kilometres from the epicentre, saw its downtown area wiped out by the tsunami.

Eyewitnesses recalled how children at a Tentara Nasional Indonesia (TNI, or Indonesian National Defence Force) camp next to Teuku Umar beach rushed onto the mudflats to pick up the stranded fish. The camp and one of Meulaboh’s two hospitals were built on a headland that jutted out into the sea. This was prime beachfront property, as it offered a great view of the sunset, and buildings on the promontory caught the sea breeze whichever way it blew. The sweeping waters cleared Meulaboh’s beachfront like a giant bulldozer.

Returning from a survey flight, Indonesian Vice-President Jusuf Kalla said that there appeared to be no sign of life in Meulaboh. The town had counted some 40,000 residents.

Attempts to reach Meulaboh by road failed because all the bridges leading to the town had been swept away. Stretches of roads were flooded or blocked by landslides. Adding to Meulaboh’s misery was the loss of communications and electricity. The GSM mobile phone system run by Telkomsel was damaged. The only ways to reach Meulaboh and survivors in the devastated areas of western Sumatra were by air and sea.



People living along Meulaboh’s coastline stood no chance as the tsunami surged inland.



The west Sumatra coastline facing the Indian Ocean bore the brunt of the tsunami’s fury. Coastal zones from Banda Aceh to Meulaboh were devastated. The main coastal road linking towns along west Sumatra was cut by the earthquake and killer waves. Bridges were broken and some parts of the road were underwater or blocked by landslides. Scenes of ruin like these helped Operation Flying Eagle’s mission planners decide that RSAF helicopters and supply by sea were the best way to reach survivors in Indonesia.



The damage is truly devastating. Seventy-five per cent of the west coast – in some places it is one hundred per cent – is gone.
MG Endang Suwarya, military area commander, Aceh

SAF mission planners who flew along the western coast of Sumatra saw miles of desolate areas. Aerial reconnaissance teams found many changes in the land and coastline beneath them, as compared with the features they saw on maps and sea charts. Several SAF personnel wondered where all the people had gone. The farthest reach of the powerful waves is evident in this aerial photo, shot from the window of an RSAF helicopter.



The earthquake cracked the runway at Meulaboh's only airstrip 16 km from the town. Only small airplanes and helicopters could use the 6,000-foot airstrip safely. Another hazard was the narrow road that led to town, which had collapsed in several places.

What were you doing on 26 December?

SAF personnel involved in the relief effort can all remember what they were doing when they first heard of the disaster. Their activities reflect a slice of Singapore life on a Sunday.

Major (MAJ) Nur Effendi, a liaison officer, was relaxing at home with his wife. They had just returned from their honeymoon in Bali.

Lieutenant-Colonel (LTC) Francis Ngooi, Commanding Officer of 122 Squadron, which flies the SAF's C-130 Hercules transport planes, was watching a movie with his family when he was paged.

Colonel (COL) Tan Chuan-Jin, Commander of 7th Singapore Infantry Brigade, did not receive that update – he had taken his daughter for her swimming lesson, where he overheard several people talking about “big waves hitting Phuket”. He did not think much about it.

Lieutenant-General (LG) Ng Yat Chung, the Chief of Defence Force, kept a keen eye on the unfolding tragedy. He had helped steer a relief operation in June 2000, after an earthquake measuring 7.3 on the Richter scale hit Bengkulu province in southwest Sumatra. He sensed that the fragmented early reports on the damage did not tell the full story. He expected that it could escalate quickly into a bigger disaster. He gave the order for the standby humanitarian assistance team to get ready to move.

By the end of the day, tsunami deaths had been reported in eight Asian countries: Bangladesh, India, Indonesia, Malaysia, the Maldives, Myanmar, Sri Lanka and Thailand. A state of emergency had been declared in Indonesia, the Maldives and Sri Lanka.



By courtesy of Reuters.

That night, LG Ng instructed his staff to arrange a Joint Services Conference at 0800h the next morning, for senior officers from the Army, Navy and Air Force to discuss how the SAF could help provide relief.

Other ministries were also on the move. That evening, COL Gary Ang, Director of Policy in the Ministry of Defence (MINDEF), was alerted by the Ministry of Foreign Affairs (MFA) that the Government intended to offer assistance to the affected countries. COL Ang conferred with BG Ng Chee Khern, the SAF's Director, Joint Operations and Planning Directorate, on what the SAF could offer. Senior officials in MFA, MINDEF and the SAF would be talking to one another very frequently in the days ahead.

When Monday's edition of the local English broadsheet, *The Straits Times*, went to print at 0100h, the opening paragraph of its front page story read: "More than 10,000 people are feared dead or missing and millions displaced as the strongest earthquake in the world in 40 years unleashed flash floods and giant waves in South and Southeast Asia."

Within a week, the death toll would be magnified more than 10 times.



By courtesy of SPH - The New Paper. Photo by Mohd Ishak Simon.

Concrete buildings withstood the earthquake and tsunami better than flimsy wooden structures. This flooded landscape is all that is left of a once-thriving neighbourhood in Banda Aceh.

The eagle stirs

Cargo is loaded onto an RSAF C-130 transport plane through its large rear ramp. The trailer seen here is called a TALU. Bulky cargo placed on small rollers on the TALU can be loaded easily into the C-130. One TALU was later flown to Banda Aceh to help unload a mobile air traffic control tower.



■ Monday, 27 December 2004

SAF servicemen and women who used the short message service on their mobile phones to alert one another to the disaster had to type out the word “tsunami” one letter at a time. It was a little-used word not in the text recognition vocabulary of mobile phones.

The morning after the disaster, almost everyone knew what a tsunami was. The death toll now numbered tens of thousands, and was climbing. Thousands more were missing and presumed dead. The outlook was very grim.

At Bukit Gombak

Early on Monday morning, senior military commanders huddled in the Ministry of Defence at Bukit Gombak.

Chaired by the Chief of Defence Force, LG Ng Yat Chung, the Joint Services Conference had been convened to work out various deployment options. The mood in the room was sombre.

The SAF’s “drawer plan” for providing humanitarian aid is code-named Flying Eagle. It was drafted more than a decade ago, and has been fine-tuned over the years with experience gained from various humanitarian missions.

Nightfall at Tuas Naval Base, in the west of Singapore. The calm before the storm.

The most important thing is to understand what the host country actually needs.

— LG Ng Yat Chung,
Chief of Defence Force

Flying Eagle provides for a baseline component, comprising a 25-person medical team of doctors and combat medics who are ready to move, anytime, for disaster relief operations anywhere in the world.

To bring this medical team to where their services are needed, a Republic of Singapore Air Force (RSAF) C-130 transport aircraft with its complement of crew is also on the Flying Eagle standby list. In this case, the C-130 could also be used to transport relief supplies, which could be acquired quickly through Singapore Technologies Logistics. In addition, several helicopters were ready to be deployed out of Singapore at short notice.

The number of medical personnel was pegged at 25 because experience showed that this is a comfortable number of people a C-130 can ferry when loaded with stores, equipment and light cross-country vehicles (in case the team needs its own transportation).

These 25 personnel could provide medical services in a local polyclinic setting and perform minor surgery. They would roster themselves to work round the clock to treat several hundred patients a day. The team was trained to sustain this tempo for a week or so, by which time the emergency relief phase would hopefully have stabilised, so their services would no longer be needed.

The one-week period would also give SAF mission planners an opportunity to assess the situation. If needed, they could prepare a second team for deployment, or scale up medical support to include surgical capabilities.

The Flying Eagle team would have to be well-stocked and self-sufficient in basic necessities like food and water before it left for its destination. The people in the disaster area did not need the additional burden of having to provide for the disaster relief forces.

“As a matter of principle, we try to be as self-sufficient as possible, at least for the initial deployment,” said LG Ng.

The SAF’s standby forces were well organised, trained and equipped to respond to a wide range of situations, including humanitarian assistance and/or disaster relief (HADR) missions. But the challenge, as LG Ng pointed out, was that there was no single template for all missions. It depended on many factors, including the nature and scale of the disaster.

A whole new ball game

It did not take a military genius to figure out that Flying Eagle’s 25-person medical team and one C-130 would not be adequate. This was clear even before the intelligence officer presented the first situation report to the Joint Services Conference.

“We very quickly realised that we had to beef up the Flying Eagle forces and send out a lot of people. The staff had explored a few more options beyond the standby forces and we now presented them to the Joint Services Conference for approval. If all the options were exercised, the mission would be the largest SAF operation ever,” said BG Wong Huat Sern, Head of Joint Operations.

“When you have to send out several hundred men at short notice, there are a lot of other things that need to be done. There are administrative preparations; you have to make sure they have been trained for the job, are properly equipped, have the necessary vaccinations, insurance coverage and so on,” he added.

LG Ng said: “The most important thing is to understand what the host country actually needs.

“Dialogue with the countries affected – Thailand and Indonesia – to discuss what was needed, became important because we wanted to provide what was useful to them and not get in their way.”

After a 45-minute discussion, the Joint Services Conference agreed that the SAF’s initial Flying Eagle contribution would consist of three components: a C-130 would ferry medical supplies; the 25-person medical team would be deployed on a second C-130; and a Landing Ship Tank (LST) and helicopters would assist in search and rescue.

It was also highlighted at the meeting that the SAF response would have to be swift. At the same time, there had to be adequate time to prepare the troops psychologically, guide them on what to do in the event of an earthquake, brief them on disease prevention, and allow for equipment and vehicles to undergo preventive maintenance.

The plan would be presented to the Minister for Defence later that morning.



RSAF ground crew at the Air Movement Centre worked round the clock to load RSAF and foreign military aircraft with relief supplies, vehicles and personnel. Despite the high tempo, AMC always loaded the cargo in time and no flight was delayed – a point the unit is immensely proud of.



A Super Puma on the flight deck of an LST. The ability to operate helicopters from LSTs allowed relief teams to reach survivors in remote areas and on offshore islands.

At Sembawang Air Base

Some SAF officers took the initiative to ready their units for possible deployment. Orders to move out had not yet come down the chain of command, but their experience of previous humanitarian and relief operations told them that it was only a matter of time before they would get their mission orders.

At Sembawang Air Base, the RSAF's main helicopter base, various squadrons primed themselves for a possible overseas deployment.

"We did this to be ahead of the game plan," said LTC Calvin Ng, Commanding Officer of 125 Squadron which flies the AS.332M Super Puma medium-lift helicopters. "Early preparations would be useful in case we were activated. Once the order was given, we could deploy within a day."

Staff Sergeant (SSG) Sam Kin Mun, an aircrew specialist with 127 Squadron which operates the CH-47D Chinook heavy-lift helicopters, added: "Our squadron put the aircraft, the people, logistics and stores on standby so that we could be ready to go within hours if we had to."

Elsewhere in the base, spare parts, maintenance manuals and tools for servicing helicopters were packed into crates for rapid deployment. Radios and medical equipment were checked. Maps and weather updates were studied. Maintenance crews were briefed to get ready to follow the helicopters overseas.

Key personnel were recalled from their leave. This was the easiest of the numerous pre-deployment tasks, as many aircrew and maintenance personnel had already reported back for duty without being told.



Our squadron put the aircraft, the people, logistics and stores on standby so that we could be ready to go within hours if we had to.
SSG Sam Kin Mun, aircrew specialist, 127 Squadron, RSAF



Preparations at Tuas

It was the same story over at Tuas Naval Base.

RSS Endurance, a Republic of Singapore Navy (RSN) LST, was then preparing for a training mission in local waters. The crew got their ship ready for an overseas deployment, just in case.

Said Captain (CPT) Vincent Yeo: “During the morning muster before we sailed, I briefed the crew to be mentally prepared to sail overseas for a mission. I told them we were likely to be activated, given the scale of the destruction.

“The crew were eager to set sail. They wanted to help the victims of the disaster.”

Acting on their own initiative, the *Endurance* crew started preparing essential items for an overseas mission. They also made arrangements with Naval Logistics Command to stock the ship quickly once there was an official go-ahead.

As they had expected, the activation came on Monday afternoon and *RSS Endurance* sailed back to Tuas Naval Base to commence preparations.

RSS Endurance opens its bow doors to allow heavy equipment into her cavernous tank deck.

Right men for the job

It was no coincidence that the officers who would lead key components of the SAF relief forces had previously trained in their respective host countries.

RSAF Weapon Systems Officer, LTC Quek Chiew Teck, and Air Force fighter pilot, LTC Keith Rodrigues, were both deployed to Medan. They had graduated from the Indonesian Air Force Staff College (SESKO-AU) in 2002 and 2000 respectively.

LTC Shanmugaratnam, from the Air Operations Department, was sent to Phuket because he had extensive interactions with the Royal Thai Air Force and spoke fluent Thai.

Several Army officers familiar with Indonesia were deployed there. Among them was LTC Tay Boon Khai, commander of the first SAF liaison team in Banda Aceh, who had graduated from the Indonesian Army Staff College (SESKO-AD) in 2001, and was fluent in Bahasa Indonesia. MAJ Lam Chee Yuong, who commanded the combat engineer team, was at SESKO-AD in 2004. COL Tan Chuan-Jin, commander of the Humanitarian Assistance Support Group deployed to Meulaboh, had served as Army Attaché in Jakarta before taking command of the 7th Singapore Infantry Brigade (7 SIB) in October 2004.

Looking back at how the operation was put together, LG Ng pointed out that among the most important decisions he had to make was to pick the right people to lead the mission. "An understanding of the local context, culture and language was very important," he said. It was critical for mission success.

Chief of Defence Force LG Ng Yat Chung makes a point to RSAF pilots and aircrew at the start of Operation Flying Eagle. Senior SAF officers kept in close touch with nearly 2,000 SAF personnel deployed overseas, to ensure that they had what they needed to accomplish their tasks. LG Ng and two Service Chiefs, Chief of Air Force MG Lim Kim Choon and Chief of Army MG Desmond Kuek, visited SAF relief teams in Indonesia and Thailand.





C-130 aircraft from 122 Squadron were the backbone of transport flights in Operation Flying Eagle.

Ground zero

Based on initial reports, LG Ng judged that the SAF's assistance would be most useful in Aceh and Phuket. He directed the SAF to focus their attention on these two areas.

But two issues had to be addressed first – at the time, no one in the SAF knew precisely what the Indonesians and Thais needed, or where the aid should be sent.

The Chief of Defence Force decided to speak to his Indonesian counterpart, General (GEN) Endriartono Sutarto, Commander-in-Chief of TNI, to get his assessment of the situation.

Meanwhile, operations rooms in various SAF units were transmitting the official orders, which confirmed what some astute SAF officers had guessed earlier that morning.

The mission order began: “The SAF is to provide humanitarian assistance and disaster relief to assist countries hit by the earthquake and tsunami.”

Operation Flying Eagle was launched.



The first two of four Super Pumas that were deployed to Phuket and Aceh, taking off from Sembawang Air Base.



This is a very significant, a major deployment for us... We've never done anything on this scale before, so we are pushing the limits of what we have done previously.

Prime Minister Lee Hsien Loong

Mission checklist



■ Tuesday, 28 December 2004

SAF units that had started getting themselves ready for action, on a hunch that they would be deployed, now had official orders to move into high gear. Their procurement orders for stores and equipment were given top priority.

The RSN also asked for six heavy-duty washing machines and four clothes dryers for *RSS Endurance*, which were received just two days later. The normal process of budgeting and tendering, which would have taken months, had been short-circuited.

Red tape was cut at all levels. SAF units that requested mission-critical equipment and supplies got what they asked for immediately.

COL Daniel Chua, Deputy Assistant Chief of the General Staff (Logistics), said the SAF's response to this humanitarian operation had to be scaled up rapidly. "We do have items on standby, like blankets, combat rations, groundsheets and standard medical supplies. But the requirements for this operation were far more massive. There were many things that were not on our standby list. For instance, there was a requirement for 5,000 tins of milk powder. The SAF doesn't stockpile this sort of thing."

Previous purchase orders were retrieved so that logisticians could quickly identify suppliers and work out a reasonable cost for an item. To save time, they went directly to local suppliers, many of whom gladly opened their warehouses to the SAF.

It's a tight fit inside a C-130 transport plane from 122 Squadron when the aircraft is fully laden with cargo. Aircrewmen ensured cargo was strapped down tightly and would not shift in mid-flight.



Combat engineers check they have all they need before they move out from Seletar Camp. In the early days of the operation, SAF relief teams were told to pack enough to last for two to four weeks. Even the most experienced soldiers did not know what to expect, given the scale of the disaster.

Gearing up

Accustomed to supplying troops with military items from weapons to combat rations, SAF logisticians now had to procure some unusual items. They managed to buy 11,000 tents of all sizes and colours. “We had everything from four-man to twenty-man tents,” said COL Chua.

Then there was the small mountain of stationery: 5,000 sets of colour pencils, 5,000 school bags, 50,000 exercise books, erasers and rulers. These were for the Indonesian children to resume their studies as quickly as possible.

“Responsiveness, flexibility and improvisation.” COL Chua ticked off the logisticians’ watchwords.

Mission commanders who asked for particular personnel to join the mission got whom they wanted.

MAJ Abdul Nasir bin Hussein, the S4 (logistics officer) picked for the task force to Indonesia, needed a deputy. He asked for MAJ Lee Meng Seng, an assistant logistics officer at Headquarters Guards, as he felt that the latter’s expertise in moving supplies from ship to shore was crucial. The two officers had met in 1998 when 7 SIB was organising that year’s National Day Parade, and had become firm friends who understood each other splendidly. MAJ Nasir got his deputy.

COL Tan Chuan-Jin, Commander 7 SIB, asked for the man who had been his personal assistant when he was Army Attaché at the Singapore Embassy in Jakarta. He felt that First Warrant Officer (1WO) Louis Tan’s fluency in Bahasa Indonesia, experience with the Indonesian way of doing things, and firm knowledge of who’s who in the TNI chain of command, would be critical when the task force arrived in Indonesia. COL Tan was right on all three counts.

Operation Flying Eagle (OFE) was shaping up nicely. Except for one crucial hitch – there was hardly any information on the situation in the disaster zones.

First flight

Unknown to most of the personnel who were busy readying their units for deployment, the SAF mission planners had yet to decide where exactly the OFE forces would be sent.

Though most SAF units reported that they were good to go, the mission planners were now caught in what some called the “fog of tsunami”.

LG Ng Yat Chung recounted the uncertainty of those early days.

“Information was slow in coming in. As the days went by, the death toll kept climbing. But we still did not have a full picture of the disaster.” By this time, 48 hours after the earthquake, the death toll had shot up to 55,000 – five times the first estimate.

“It wasn’t clear what assistance our host countries wanted. So what we did was to have a whole menu of possibilities. We started with one part, and as the situation and the needs of the host countries became clearer, we added more parts,” said LG Ng.

As the SAF assembled its forces, Prime Minister Lee Hsien Loong spoke to his counterparts in Indonesia, Malaysia and Thailand to offer condolences on behalf of the people of Singapore, and to find out what assistance they might need. Minister for Defence Teo Chee Hean, LG Ng, and the Chiefs of the Army, Navy and Air Force made similar calls to their counterparts.

Meanwhile, planners in MINDEF worked to collect information from a variety of sources, including commercial news agencies, the internet, satellite photos and the defence attachés in Indonesia and Thailand. The final missing ingredient was firsthand information from the ground. This would not be available until the first SAF officer stepped into the disaster area.

The SAF deployment was being held back by the wait for diplomatic clearance for the military aircraft to fly in. The RSAF’s C-130, Super Puma and Chinook crews told HQ RSAF they were ready to go, but the SAF was still awaiting Indonesian clearance for their flight plans.

The first diplomatic clearance came in on Tuesday. The SAF immediately despatched the waiting C-130 that had been pre-packed with relief supplies like food, tents, blankets and medicine.

The four-engine transport aircraft took off from Paya Lebar Air Base. The flight crew piloted their Hercules over the Malacca Strait and set course for Polonia Airport in Medan, 600 kilometres away. This was the first of many relief flights that 122 Squadron would undertake.

An hour and a quarter later, the C-130 touched down and the mission commander for that flight, COL Toh Boh Kwee, symbolically handed over a box of supplies to the Governor of North Sumatra, Rizal Nurdin.



Muscle power was often the only means of unloading cargo from RSAF planes and helicopters, as airports in Indonesia were swamped with relief aircraft and did not have enough forklifts to serve every flight. The huge Chinooks were the only helicopters that could fly from Medan to Meulaboh unrefuelled. One Chinook could airlift 20,000 lbs of cargo, whereas a medium-lift chopper could carry around 5,000 lbs of cargo.



Two days after the tsunami, COL Toh Boh Kwee (right) led a reconnaissance team to Indonesia. He met Indonesian Army officers in Medan to find out firsthand what was most urgently needed.

Later in the day, COL Toh visited the Command and Control Coordination Centre for the Disaster in Aceh. This was the Indonesian centre in Medan that had just been set up to spearhead relief work in the devastated areas. Contact with the TNI was established before COL Toh and his team reboarded the C-130 to fly home.

What had already been a long and tiring day for COL Toh and his party did not end even when they touched down in Singapore. Waiting at Paya Lebar Air Base to debrief COL Toh and his team were key OFE mission planners from the Joint Operations Department. The debriefing stretched late into the night.

Heavy earth-moving machinery like excavators were among the 51 vehicles crammed aboard *RSS Endurance* (background).



■ Wednesday, 29 December 2004

Joint Services Conference

The information gleaned from COL Toh and other sources was quickly assimilated and factored into the SAF's plans. At this stage of the operation, Medan was the main point of entry into the disaster area. The airport in Banda Aceh was only semi-operational because of damage to its infrastructure. The port at Banda Aceh was also badly damaged.

As a result, most of the disaster relief aid and supplies were pouring into Medan and quickly filling up all available storage space. It was clear that Chinooks would be very useful. With their long range and large payload, Chinooks could perform the vital function of moving emergency supplies from Medan to the most isolated areas.

"We now had enough information to send in the next component of our humanitarian forces," said BG Wong Huat Sern, Head of Joint Operations. "The Chinook crews were raring to go, and we knew that Medan was where these helicopters would be stationed. We had also paved the way for the advance party of our medical team to fly into Banda Aceh." Both teams departed from Singapore on Wednesday afternoon.

The Joint Services Conference was most focused on ensuring that the LST and the humanitarian assistance task force on board would be sent to where they could be of greatest value. BG Wong explained: "The value of the LST is that it can disembark people, supplies and heavy equipment onto the shore without having to rely on wharves and jetties. It would therefore be of greatest value where such facilities had been swept away."

Chief of Army Major-General (MG) Desmond Kuek identified the need for more in-depth terrain analysis of the areas where the SAF was likely to be operating. It was important to have an appreciation of the points of entry by land, sea and air for each potential location. A few possible deployment sites were identified and planners were directed to analyse them more thoroughly.

The meeting also agreed that the Chief of Navy, Rear-Admiral Ronnie Tay, would call his counterpart in the Indonesian Navy, Admiral Bernard Kent Sondakh, to discuss where the landing ship could best contribute.

A C-130 transport aircraft being loaded with relief supplies. It left for Aceh, Indonesia on 28 December.



Navy personnel preparing food supplies for loading.

The people we sent to the disaster areas overseas worked very hard. That is clear. What's not covered in the news is the fact that many hundreds of people back home worked extremely hard to support them.

LG Ng Yat Chung

Teeth and tail

An unchanging constant of any military operation – be it a battle where bullets and bombs fly, or a humanitarian operation where the only pain comes from a doctor's needle – is the fact that frontline soldiers are always publicity magnets.

Media stories on the work of air force pilots, army commandos or submarine crews often make riveting reading. Journalists are seldom interested in those who support the war-fighters, the far less glamorous and unexciting backroom support.

Military analysts have a term for the number of people who are needed to support each war-fighter: the teeth-to-tail ratio. The “teeth” refer to the parts that bite, like frontline units. The “tail” is a not-so-flattering reference to the support units. It is clear to all military professionals though, that the teeth cannot perform without the tail.

In Operation Flying Eagle, the “teeth” were the doctors and medics who treated the wounded, the combat engineers whose job was to create access points like landing beaches, the commando pathfinders tasked to scout for new helicopter landing sites, the helicopter crews who flew in relief supplies and airlifted the wounded from the disaster zones.

Their work at the frontline was supported by a long “tail” of SAF personnel, both in the disaster zone and in Singapore, who maintained a well-oiled logistics chain to sustain the operations.

“The people we sent to the disaster areas overseas worked very hard. That is clear,” said LG Ng. “What's not covered in the news is the fact that many hundreds of people back home worked extremely hard to support them.

“Logisticians who made sure the ships and aircraft had the loads they needed; these people did not go into theatre but they also worked very hard. I want to credit them for their dedication and efficiency.”

Logisticians' nightmare

An old military maxim states that “tactics are for amateurs; professionals study logistics”.

The two SAF officers standing on the Western Pier at Tuas Naval Base considered themselves logistics professionals. It was around 2200h on Wednesday, 29 December, and they were up to their eyeballs sorting out the logistics. Their men had been working flat out since being activated on Tuesday afternoon for OFE.

They did not like what they were seeing.

Commanding Officer of the Navy's 195 Squadron, LTC Gregory Goh, turned to Army MAJ Abdul Nasir. “Nasir, when is all this going to be done?”

MAJ Nasir, an S4 (logistics officer) tasked with overseeing the loading of supplies and equipment onto *RSS Endurance*, could not say for sure.

Never in his 15-year military career had he seen this much equipment being loaded onto an LST. *RSS Endurance* officers had earlier confirmed that their ship had never been packed with so much stores before. That gave him little cheer.

Sensing that a straightforward reply would be more prudent than beating around the bush, MAJ Nasir replied: “I don't know, sir. But one thing's for sure, all this equipment has to go onto the ship. All of it.”

The row of pallets stretched the entire length of the 141-metre-long ship, waiting to be loaded by the forklift operator or the ship's crane crew. Just behind this line of pallets was another row of stores, about 50 metres long. As the two officers conferred, more vehicles arrived to offload stores.

“Can it be done?” asked LTC Goh.

“Yes, it can be done, sir. We just need to double-stack the stores and tie them down,” said MAJ Nasir with quiet confidence.

That was the plan he had worked out with his logistics team for loading the ship. MAJ Nasir's plan was, of course, based on theory since the amount of things he was tasked to load onto the ship had broken all previous records.



Cargo packed in RSN LSTs had to be strapped down securely so they would not shift in heavy seas.



A Unimog truck being strapped down in *Endurance*. Crews worked around the clock to prepare the ship for her voyage to Aceh.

The logisticians – or “loggies” – were aware of the type of cargo coming on board. SAF units ordered to join the ship had provided their respective stores manifests. What the loggies saw on the manifests worried them.

To add to their concerns, all the stores had to be packed onto wooden pallets, but none of the units could tell the loggies how many pallets of equipment and supplies they had until after everything had been palletised.

And then there were the vehicles. MAJ Nasir had on his list 51 vehicles and trailers, ranging from small cross-country vehicles like Land Rovers, to medium-sized Unimog trucks, five-tonne trucks, power generators, water trailers, to earth-moving equipment like bulldozers.

The LST was loaded based on the SAF’s “best guess” of what the HADR force would need on arrival in the disaster area. Because the task force’s destination was still being worked out, and conditions at the yet-to-be-specified location were unknown, the decision was made to pack more.

LG Ng explained: “We didn’t know how bad the damage was. We were not sure whether they could find a landing point. So we put into that first ship all those things we thought they were likely to need. They had some means to find a landing beach. They could do initial engineering work. And they had to have enough resources on the ship to support everyone on board.”

That translated into a nightmare for the loggies. The scene at Berth W4 where *RSS Endurance* was moored was almost organised disorder.

Space was so tight that three-quarters of the ship’s 75-metre-long flight deck was turned into a parking area for all sorts of vehicles. After consultation with the ship’s crew, a strip of deck was left clear for life rafts. This empty space also provided room in case there was a medical emergency on board that required the casualty to be winched off the ship by helicopter.

Units that wanted to sail with everything they had were given a reality check. The loggies bumped off equipment they thought would not fit in the ship, or items they felt were impractical.

Supplies that arrived were recorded on the computerised manifest. However, soldiers also boarded the ship and loaded things on their own.



Moving vehicles around was an art in itself: there was hardly enough elbow room to manoeuvre. The white pods at the rear of the ship are life rafts for the extra personnel on board.



Vehicles and cargo stored on the LSTs were strapped down so they would not shift in heavy seas.

“There were some items that came in without my knowledge,” MAJ Nasir said. “I saw people boarding the ship carrying boxes of their own. This was ‘no go’. Every item had to be on the manifest so we knew what we had with us.”

When *RSS Endurance* sailed, MAJ Nasir got the representatives of the units aboard the ship to declare what they had, then updated his stores manifest. His reasoning was simple – if stores on the ship were disorganised, time would be wasted hunting for things that were urgently needed when it was time to disembark and start work. Having every item on the manifest would also allow commanders to see what was available, so that they would not ask for items already on board to be sent all the way from Singapore.

Man against time

The whole loading process was complicated. First, the type and size of loads needed for the various predicted requirements had to be considered. Then, there were the arrangements to have them transported to the wharf from all over Singapore. And there was the sequence of loading and where to stow each load, so that unloading would be fast and efficient. There was a myriad of interlinked factors to consider. Any slip-up would hinder the entire loading operation.

Even as these challenges were being met, the mechanical ramp on the wharf broke down. It had been working fine just before the loading operation began. The mechanical ramp connected the wharf with the LST’s vehicle ramp. With the ramp unserviceable, loading would slow down.

MAJ Nasir said: “When the ramp was down, nothing could come in from the bow. This made the loading extremely difficult, as the best way is to forklift things up, open up the mouth of the ship, go in all the way and load up. Now vehicles, stores and everything else had to be lifted on board by crane. Everyone had to work even harder now because we were racing against time.”

The logisticians considered moving the ship to another ramp but the tidal conditions did not favour *RSS Endurance* shifting berth.

So at 0400h on Thursday, LTC Goh called his Navy superiors while MAJ Nasir called COL Tan at home. After a quick discussion, LTC Goh made the call to focus on having the palletised stores and everything else lifted on board by crane, while the Navy put in every available resource to repair the

unserviceable ramp. Engineers and technicians worked double-time to trace and rectify the fault. Meanwhile, little by little, the logisticians, forklift operators, crane operators and ship crew painstakingly loaded the stores. One thing was clear in everyone’s mind – *RSS Endurance* had to be loaded in time for it to sail on Friday.

“We must help”

At the Istana on Thursday, 30 December, Prime Minister Lee Hsien Loong, Minister for Defence Teo Chee Hean and other ministers who were directly involved in Singapore’s tsunami relief operation gathered for the Government’s first media conference on the disaster.

PM Lee said he had spoken to Indonesian President Susilo Bambang Yudhoyono a day after the disaster. He had also telephoned Malaysian Prime Minister Abdullah Badawi and Thai Prime Minister Thaksin Shinawatra to offer help.

“We knew that they were stretched and as the picture unfolded, we knew that they needed resources and we had something which we could do to help them,” said Mr Lee.

“We’ve been doing a range of things in the region which focus on Indonesia and Thailand because these are the countries close to us. I also offered help to Malaysia but I think their problems are less and they are able to cope with their problems themselves.”

PM Lee then outlined the assistance that Singapore was prepared to give regional countries hit by the disaster.

An SAF medical team had already left for Banda Aceh. Helicopters were on their way to Medan and Phuket. At the request of the Indonesians, the SAF had also assigned a C-130 aircraft to ferry supplies from Jakarta to Medan.

Of the SAF’s humanitarian assistance task force, Mr Lee said: “This is a very significant, a major deployment for us. Overall, I think it’s going to involve several hundred people. We’ve never done anything on this scale before, so we are pushing the limits of what we have done previously.

“The thing is to be there to be of a direct help. It’s clear now that this disaster is of an even greater magnitude than anybody originally thought.”

The thing is to be there to be of a direct help. It’s clear now that this disaster is of an even greater magnitude than anybody originally thought.

— Prime Minister Lee Hsien Loong

The Minister for Defence then mentioned a place called Meulaboh, “which has been absolutely devastated”. It had been cut off from the rest of Sumatra and could be reached only by air. This was where the Indonesians wanted the SAF to focus its effort. For the next three weeks, Meulaboh would be the focus of attention for the SAF and all other Singaporeans involved in the relief effort.

Mr Teo added: “In Phuket, of course, we will work with the Thai authorities who are doing a very good job helping all the various people who have been affected there, including Singaporeans.”

Task force commander

The officer given command of the Humanitarian Assistance Support Group (HASG) was 36-year-old COL Tan Chuan-Jin, Commander of 7 SIB, a Guards unit.

Many thoughts ran through COL Tan’s mind on the eve of his departure.

“On 30 December, lying in bed that night, it fully sank in that this was not an exercise. This would be the biggest military operation we had ever done.

“To me, thinking too much about the operation was a luxury I felt I could not indulge in. I had to get on and do it. The ship was going to sail, aircraft were going to fly off, things were already cranking in motion. I was already clear in my mind what I needed to do – not the details – but I was very clear about our broad strategies, the basic principles and our overall objectives.

“The challenge was how to apply this in the theatre, depending on the situation. I did not feel under-confident. I did not feel over-confident. I just felt it was something that needed to be done and we had to do it.”

As COL Tan turned in for the night, the death toll from the earthquake and tsunami disaster hit six digits – 123,188 people dead in 11 countries.

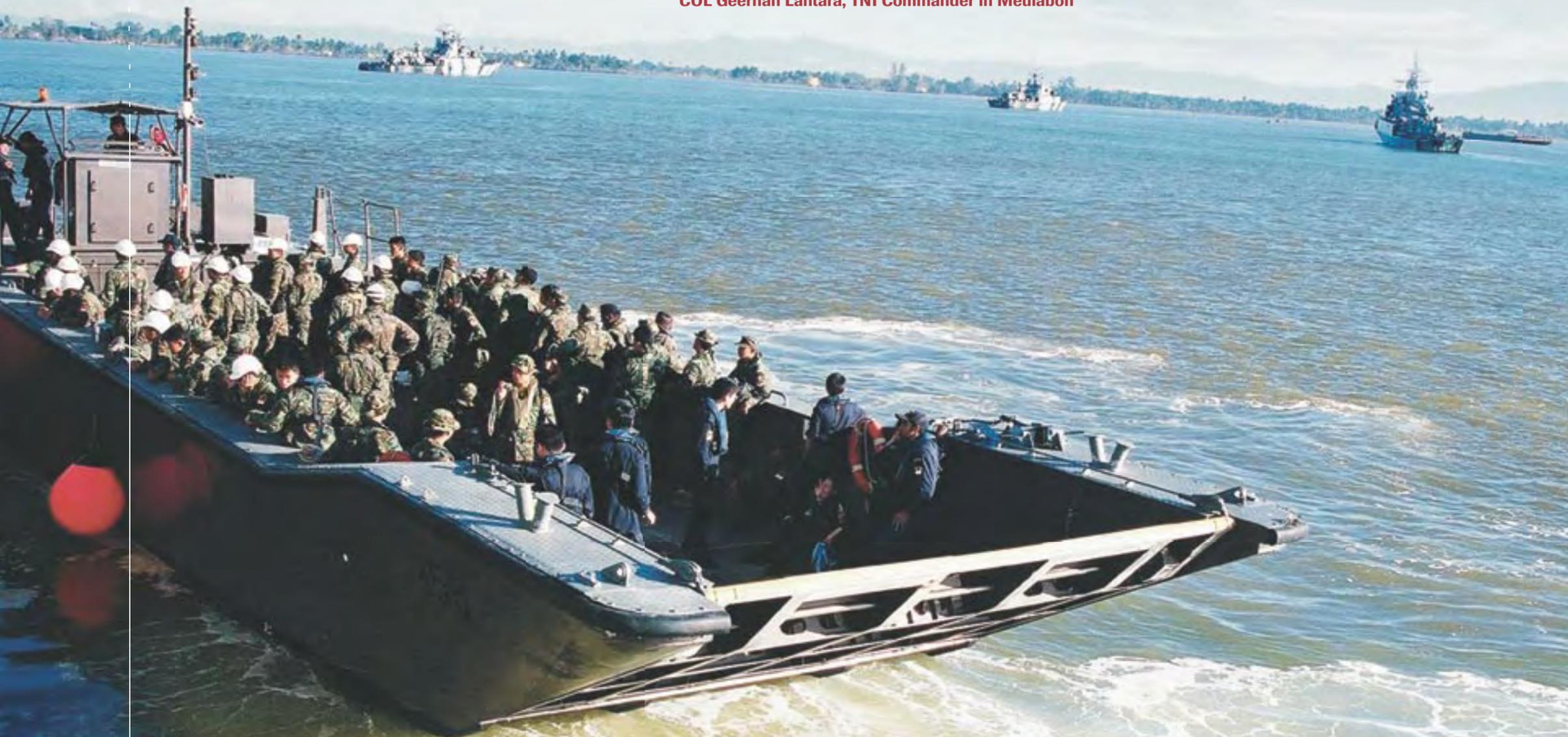
Operation Flying Eagle was taking flight on a scale never seen before in the history of the SAF.

A scene that greeted COL Tan Chuan-Jin as he flew into Meulaboh for the first time.



When your people arrived, it lifted our spirits.
We knew that we were no longer alone.

COL Geerhan Lantara, TNI Commander in Meulaboh



Moving into uncharted territory

When you go there, you will face a very difficult time, because the people there are facing great difficulties. Do your best, take care of yourselves and take care of your buddies. Bon voyage!

— Defence Minister Teo Chee Hean



■ Wednesday, 29 December 2004

Banda Aceh

As a combat officer, LTC Tay Boon Khai was trained to size up a situation, and then develop and execute plans quickly to catch the adversary off-guard. Exercises conducted by the SAF have a high “ops tempo”. This was a pace LTC Tay was well familiar with.

LTC Tay, the OFE mission commander in Banda Aceh, and 10 others were the advance party for the SAF medical team that would be deployed to the shattered town.

The team was due to fly out of Changi Air Base on an RSAF Fokker-50 (F-50) utility aircraft at 1100h on Wednesday, 29 December. But the take-off was delayed because Polonia Airport in Medan could not provide landing clearance in time. The F-50 finally arrived at Polonia at 1400h local time after a two-hour flight.

The advance party had to make another trip from Polonia to Banda Aceh, but the men were told that Banda Aceh was closed to foreigners. The news about Sultan Iskandar Muda Airport in Banda Aceh was not good. The airport’s runway lights were knocked out and there was no radar guidance. Air traffic control had their hands full, operating out of a tent after the earthquake damaged the control tower. It would not be possible to land or take off after nightfall.



Although we are a small country, we made a big difference in the emergency relief phase. We were able to respond quickly and provide what was needed on the ground...

— LTC Tay Boon Khai,
SAF team leader (Banda Aceh)

After some discussion with the 121 Squadron aircrew who flew the F-50, LTC Tay decided that if they could not take off from Medan by 1630h, then the flight to Banda Aceh would have to be postponed.

“We wanted to get there before last light so that the Fokker could take off safely and our team would have time to find a place to camp for the night,” explained LTC Tay.

“We did not know the situation on the ground in Banda Aceh so we decided to break bulk. We unpacked our pre-packed stores into man-portable parcels so that we could move quickly carrying what we needed. We brought along satellite phones and a satellite dish, and enough food and water for three days in case we got stranded there.

“The only advice we got was to try to park near the military apron at the airport and ask for directions. We were flying into Banda Aceh, into the unknown.”

The F-50 took off at 1630h and arrived at Banda Aceh about an hour later. It circled the airport a few times, awaiting permission to land. The twin-turboprop transport plane finally touched down less than an hour before sunset and taxied close to the military apron.

The propellers on the Fokker’s two Pratt & Whitney engines were kept turning as LTC Tay and his team raced to unload their field packs, rations and equipment. When the unloading was done, the aircrew gave LTC Tay and his team a “thumbs-up” to wish them luck before shutting the cabin door. The F-50 took off immediately as dusk descended on the crowded airport.

“The scene that greeted us was total mayhem,” said LTC Tay. “Relief supplies were strewn all around the runway. Flights landed, tossed out humanitarian aid supplies anywhere they thought was convenient and took off straight away. There didn’t seem to be anyone in charge.”

LTC Tay led his team to the only warehouse in sight and linked up with senior TNI officers. By chance, he met a TNI Lieutenant-Colonel whom he had befriended when he attended the SESKO-AD command and staff course in 2001.

LTC Slamet, assistant operations officer of the TNI’s Special Humanitarian Assistance Task Force, greeted LTC Tay warmly and gave him several multi-coloured four-man tents donated by the Palang Merah Indonesia (Indonesian Red Cross) so that his team could rest for the night.

As the town centre was some 15 kilometres from the airport, LTC Tay decided to stay put at the airport. He did not want to risk being stranded in an unfamiliar town at night.

The men in the advance team experienced their first ground tremors shortly after they landed. They surveyed their rest area for loose objects and other hazards like power lines before getting some shut-eye.

LTC Tay filed his first report from Banda Aceh before he turned in as dawn broke on Thursday. It had been close to 24 hours since his day started.

He could sleep for only an hour, as the main body of SAF doctors and medics would soon be arriving in Banda Aceh aboard three RSAF C-130 aircraft. His advance party had a list of things to do before that, including scouting out a camp area and looking for clean water.

If LTC Tay had been hoping for a high ops tempo, he got more than what he bargained for in his first 24 hours in Banda Aceh.

■ Thursday, 30 December 2004

Sembawang Air Base, Singapore

On Wednesday, Sembawang Air Base had been the scene of a send-off for two Chinooks deploying to Medan. Less than 24 hours later, on Thursday morning, there was another send-off from Sembawang, this time of four RSAF helicopters, bound for Phuket. The Thai Government had welcomed Singapore’s offer of helicopters for the relief effort.

MFA and the Singapore Civil Defence Force (SCDF) had already been busy in Phuket. MFA was doing what it could to help Singaporean victims of the tsunami and their relatives. The SCDF had deployed a rescue team a day earlier to help in rescue and recovery work. The SAF helicopters would conduct relief flights in support of the Thais and provide mobility for the SCDF team.

At Sembawang Air Base that morning, Minister for Defence Teo Chee Hean sent off the aircrew of two Super Puma and two Chinook helicopters and their maintenance support crews. The send-offs were becoming a routine for the Minister.



Chinooks at Sembawang Air Base. At the peak of the operation, 80 per cent of the RSAF’s Chinook fleet in Singapore was deployed overseas.

Phuket International Airport



...I was overwhelmed by the sight of hundreds of casualties, many of whom were foreigners, being treated by medical personnel in a makeshift hall next to the arrival hall at the airport.

— LTC Shanmugaratnam, Super Puma pilot
RSAF Senior Liaison Officer, Thailand

The flattened urban landscape around Phuket's coastline made it imperative for RSAF helicopter crews to choose their landing sites carefully. Debris whipped up by the helicopter's rotor blades could injure civilians nearby or damage the helicopter.



When the RSAF helicopters touched down at Phuket International Airport five hours later, they were the first foreign military aircraft to arrive on the resort island to assist in the search-and-locate operations.

LTC Shanmugaratnam, a Super Puma pilot, was the RSAF Senior Liaison Officer for the relief assistance operation in Thailand. He had been on standby since 27 December, and was glad to commence his mission.

Nothing in LTC Shanmugaratnam's 26 years of experience with the RSAF had prepared him for what he saw in Phuket, even though he was no newcomer to disaster relief missions. The pilot had amassed rich experience in the search-and-locate mission in Palembang after SilkAir Flight MI185 crashed into the Musi River in December 1997, and in an HADR mission with the United States Army in 1990 after a typhoon struck Western Samoa.

"When I arrived in Phuket, I was overwhelmed by the sight of hundreds of casualties, many of whom were foreigners, being treated by medical personnel in a makeshift hall next to the arrival hall at the airport," he said.

The view from his helicopter was equally painful.

"From the air, I could see that the devastation of the worst hit areas along the western coast of Phuket, Phang Nga, Khao Lak and Phi Phi Island was incredibly massive and extensive," recalled LTC Shanmugaratnam.

"It was really sad to see many areas and infrastructure completely wiped out. We could see people moving through the debris, looking for their loved ones and belongings, and helping with the rescue efforts."

The disaster hit home for another reason – he had been reserving his annual leave to take his wife and children to Phuket over the Christmas holiday weekend. But the resort they had planned to stay at was fully booked. LTC Shanmugaratnam treated his family to a holiday in Chiangmai and Bangkok instead, and the family returned to Singapore just before Christmas.

"When we heard the news on Boxing Day, my wife and I, you could say we were in a state of shock, and saddened by the disaster. It could have easily been my family there if we had stuck to our original plan to spend Christmas in Phuket."

Sadly though, more than a handful of Singaporeans did not have such a close call.

The day the four RSAF helicopters took off for Phuket, the tally compiled by the MFA showed that five Singaporeans were confirmed dead in Phuket.

Another 144 were "uncontactable", meaning that they were known to have been in the vicinity of affected areas but could not be reached. Sixteen were "missing" – a more ominous status indicating that there was definite information that they had been in a devastated area or could have been swept away by the waters.

■ Thursday, 30 December 2004

Polonia Airport, Medan

RSAF aircraft deployed in OFE were given the call sign "Singa", followed by the tail number.

Super Puma aircrews of Singa 278 and Singa 279 had been ready to deploy since Tuesday, 28 December, but were held back awaiting diplomatic clearance.

The helicopter crews and technicians had rushed to get their machines ready, only to learn that flight clearance had yet to be approved.

On Thursday afternoon, Singa 278 and Singa 279 were finally airborne over Medan. LTC Calvin Ng, Commanding Officer of 125 Squadron, was the pilot in command of Singa 279. He had been waiting for 45 minutes for clearance to land, and still could not get a radio call out to Polonia's air traffic control tower because other pilots had jammed the single radio frequency.

LTC Ng had enough fuel to continue flying for several hours. Nonetheless, he felt uneasy as he watched the airspace over Polonia get congested with more helicopters and aeroplanes circling the runway and awaiting landing instructions.

Aircraft technicians sat quietly in the cabin, lost in their own thoughts, as the helicopter was bumped around by the turbulence. This trip, though uneventful, was no joy ride.

Polonia Airport, two kilometres from Medan's city centre, normally handled 60 to 70 flights a day. When aid began pouring into Aceh after the tsunami, the airport saw as many as 300 flights each day.



A priority for Singaporean rescue teams was to search for and rescue missing Singaporeans and other survivors trapped in resorts like this one.





A warehouse at Medan's Polonia Airport fills quickly with relief supplies as aid pours in from around the world. SAF logisticians worked with their Indonesian counterparts to sort out and catalogue items.

Medan was the biggest city near the disaster area, and it was undamaged by the earthquake. Almost every relief team heading for Banda Aceh, 500 kilometres away, stopped at Medan to assess the situation and stock up on supplies before proceeding to the disaster area.

Polonia was clearly over-worked, but aeroplanes and helicopters kept coming non-stop. Its 9,500-foot runway made it the largest airport in Sumatra. It was also the nearest airport to the earthquake-devastated regions in northern and western Aceh.

Two RSAF CH-47D Chinooks had made it to Medan the previous day. The Indonesian authorities instantly recognised the role the Chinooks could perform in flying relief missions in Aceh. They had four times the capacity of all other available helicopters in Sumatra. And they had the longest range; they could reach the affected areas from Medan. The Chinooks were immediately put to work, ferrying critically needed food, water and medicine from Medan to the stranded coastal town of Meulaboh.

Paya Lebar Air Base, Singapore

As Singa 278 and Singa 279 were flying into the crowded skies over Polonia, other forces being assembled in Singapore for OFE learnt of the air traffic congestion at the airport.

Three C-130 transport aircraft from 122 Squadron were fully fuelled and loaded with relief supplies such as food and water. Each plane also had an MB290 light truck strapped down in its cargo hold. Aboard one of the C-130s was the 14-person medical team due to join LTC Tay's advance party in Banda Aceh.

Everyone was good to go. The pilots had studied the route they would take into Sultan Iskandar Muda Airport, the loadmasters had checked and re-checked the straps securing the cargo on board, and the medical team had primed themselves mentally for their tasks ahead.

Then came the bad news – only one of the C-130s could fly. The other two aircraft had to abort because Sultan Iskandar Muda Airport could not cope with the heavy traffic.

The plan had been to despatch all three C-130s together. Once the medical team was on the ground, all three light trucks would be unloaded so that the team could have their own transportation in Banda Aceh. But it was not to be. The other two C-130s took off for Banda Aceh with their supplies only the following day.

Sultan Iskandar Muda Airport, Banda Aceh

More than 90,000 dead bodies had been counted, and the putrid stench of death hung like a thick cloud over the ravaged city that was once home to 400,000 people.

The airport was filled with milling crowds of Banda Aceh residents who were left homeless by the earthquake and tsunami.

When LTC Tay met up with his men who had just arrived in an RSAF C-130, what he saw reminded him of television footage of Saigon at the end of the Vietnam War, when desperate refugees fought to get on board the last aircraft leaving the city.

The C-130 was packed with tonnes of supplies. There was no forklift and all the supplies had to be unloaded by hand. There was a light truck which had to be unshackled and driven off the rear ramp of the aircraft. All the while, the crowd kept surging forward, trying to squeeze on board the aircraft. Everyone wanted to get away.

"People were desperate to get onto the C-130. Things were nearly out of control," LTC Tay said.

LTC Tay knew he had to take charge. The OFE mission commander in Banda Aceh spoke politely but firmly in Bahasa Indonesia, and persuaded the crowd to stay back so that the aircraft could be unloaded quickly. He assured them that the SAF team was there to help and more aircraft were on the way.

Just as he finished, an ambulance inched its way to the C-130 and off-loaded a badly injured man. LTC Tay had to turn back the stretcher team as the C-130 was not equipped for an aeromedical evacuation.

"His relatives were hysterical and kept pleading," said LTC Tay. "It was very difficult for us to turn him away, but we just had to. We did not have the medical equipment to take care of him, and we also had to look out for the safety of the rest of the passengers."



Cargo often had to be manually unloaded at Banda Aceh airport because of a shortage of forklifts.



It felt very good to know that the SAF's efforts could make such a difference. It really motivated everybody to put in even more effort.

— BG Wong Huat Sern,
Head of Joint Operations

LTC Tay allowed as many Indonesians to board the C-130 as the aircraft could safely take. They would disembark in Medan, before the plane flew back to Singapore.

That night before he turned in, LTC Tay reflected on the emotionally charged situation he had handled. He was trained to make tough calls, and he knew he had done the right thing.

But he felt for the critically ill man who had to be left behind in Banda Aceh, and for his family.

Recounting the incident, he said softly: "It took me quite a while to fall asleep that night."

■ Friday, 31 December 2004

Joint Operations Department, Singapore

Besides the Joint Services Conference, numerous working-level meetings were convened as and when required. The Joint Operations Planning Group (JOPG), chaired by BG Wong Huat Sern, Head of Joint Operations, was one such meeting.

The JOPG's role was to sift through all the input from various sources, resolve working-level issues, and surface higher-level issues for the Joint Services Conference to deliberate.

BG Wong recalled: "Morale was high at the New Year's Eve JOPG meeting. The Chinooks had conducted their first missions into Meulaboh the previous day. Our aircrews had been very warmly received, because they had just delivered the first heavy shipment of food and supplies into Meulaboh. It felt very good to know that the SAF's efforts could make such a difference. It really motivated everybody to put in even more effort."

Operation Flying Eagle was ramping up rapidly. Decisions on whom to send and what assets to deploy, in what numbers and to which locations, were being taken in quick succession.

Aidah Nursina and her son Mohd Rezki Ananda, arriving in Banda Aceh after being airlifted from Meulaboh.



By courtesy of SPH - The Straits Times. Photo by Wang Hui Fen.



The SAF medical team at work in Banda Aceh.

That morning, JOPG was grappling with new input. News reports and commercial satellite pictures of India's Andaman and Nicobar islands after the earthquake and tsunami indicated that the communities on those remote islands in the Andaman Sea had suffered great losses.

The SAF decided to develop a “drawer plan” in case assistance was needed. As things turned out, the plan remained in its drawer. India was managing the disaster relief with its own forces.

At 1400h on New Year's Eve, *RSS Endurance* set sail for Aceh.

■ Saturday, 1 January 2005

Banda Aceh

The SAF medical team in Banda Aceh, led by LTC (Dr) Fan Swee Weng, was clear about its mission. The team now had all their light trucks and could be deployed to help the beleaguered Indonesian doctors.

A large number of those who had lost their homes – the “internally displaced persons” – in Banda Aceh lacked basic medical care. The services offered by the SAF medical team was just the balm these people needed.

“When we got here, we weren't quite sure where to start,” said LTC Fan. “Some other medical and search-and-rescue teams had set up shop at the airport and were waiting for work to be assigned to them. This did not seem to be working well, so we decided we had to go out and look for our own patients.”

After close coordination with the Indonesians, the medical team found a site where they could contribute effectively. It was a large clinic at a place called Ulee Kareng. A number of the clinic's doctors and nurses were missing after the tsunami and the remainder could not cope with the flood of patients. The SAF medical team was welcomed with open arms. LTC Fan and his people quickly settled down and got to work.

Meulaboh

COL Tan's advance party had not planned to spend the night in Meulaboh. It was supposed to be a quick aerial reconnaissance flight over the town, and then back to Banda Aceh.

The advance party had waited about five hours in Banda Aceh for permission to fly. Eventually, a TNI Major-General gave the green light. COL Tan's helicopter could only circle Meulaboh. The general had good reason for denying the two RSAF Super Pumas, Singa 278 and Singa 279, permission to land. The President of Indonesia, Susilo Bambang Yudhoyono, was visiting the devastated town that day and the general did not want his President's departure to be disrupted by the Super Pumas.

During the flight from Banda Aceh to Meulaboh, COL Tan and his advance party took in the scenes of complete destruction of the west coast of Sumatra.

The leader of the medical team, COL (Dr) Edwin Low, who was in the advance party, recalled: “I expected to see people waving for help. But we hardly saw anyone during that flight to Meulaboh. I figured the people were either dead, had been evacuated or were out looking for their loved ones.”

Added COL Tan: “The devastation was a lot worse than what I imagined. I tried to register it as impersonally as I could, and focused on how rapidly I could start the relief operations so that we could help the survivors.”

LTC Tay, the contingent commander in Banda Aceh, joined COL Tan on that flight. There were also three TNI officers and they asked if they could be dropped off in Meulaboh.

“We circled the area and located a football field which we thought was in a school,” said LTC Tay. “The plan was to let the three TNI personnel out while the rest of us remained in the aircraft.”

“As we approached the field, we realised that it was not within a school, but right smack within the compound of the TNI headquarters there. Since we were already there, COL Tan decided that both of us should go out to inform the Indonesians that we were coming in tomorrow to survey the area for our Landing Ship Tank.”

Coincidentally, TNI Commander-in-Chief GEN Endriartono Sutarto and his entourage had just sent off President Yudhoyono and were waiting to be ferried back to Banda Aceh by TNI helicopters.



New Year's Day in Aceh – Colonel Yee Cheok Hong, Singapore's Defence Attache in Jakarta (left), COL (Dr) Edwin Low, medical team leader in the Humanitarian Assistance Support Group (HASG), and COL Tan Chuan-Jin, Commander of the HASG, consult a map of North Sumatra before an air reconnaissance, with Major-General Bambang Darmono (pointing), commander of the TNI Special Humanitarian Assistance Task Force for Aceh Natural Disaster.





Combat engineers could not simply shovel and dump, as dead bodies could be concealed beneath the rubble. Every earth moving operation was closely supervised and work was sometimes stopped for Indonesians to remove their dead. This mass grave near the shore was packed with several thousand bodies, all of which were given proper burial rites.

The devastation was a lot worse than what I imagined. I tried to register it as impersonally as I could, and focused on how rapidly I could start the relief operations so that we could help the survivors.

— COL Tan Chuan-Jin

Thinking that their aircraft had arrived, the TNI generals were surprised to see the SAF officers coming out of the helicopters.

COL Tan took the opportunity to ask GEN Sutarto for permission to stay the night in Meulaboh so that the advance party could, together with the TNI officers, plan for the LST's arrival the next day.

The TNI chief agreed and asked for a ride back to Banda Aceh as the TNI Super Pumas had yet to arrive.

The advance party walked through Meulaboh's flattened town centre together with the TNI officers. They also went to the airport, 16 kilometres from town, to check if it could be used by the helicopters.

COL Tan said: "It became clear that we needed to open up more landing sites for helicopters in Meulaboh, so that we wouldn't have to travel so far on the badly damaged roads."

The HASG had their work cut out for them. Once the combat engineers and commando pathfinders arrived on *RSS Endurance*, their most urgent task was to open up several landing sites to allow more helicopters to bring aid into the stranded town.

This flight had achieved more than expected.

■ Sunday, 2 January 2005

RSS Endurance, Indian Ocean

RSS Endurance, ferrying the SAF's HASG, rounded the northern tip of Sumatra after 36 hours at sea. The ship's destination, Meulaboh, was 10 hours away.

She was now in waters full of debris – floating trees, doors and windows, furniture, household items like washing boards. Then the look-outs on the LST spotted the first bodies – an adult, a child. And a hand, just a hand, clinging to a plank.

The ship's Commanding Officer, LTC Li Lit Siew, ordered the ship to sail farther away from the coast so that there would be less danger of flotsam getting entangled in the ship's propellers. And fewer floating bodies to encounter.

RSS Endurance had set sail from Tuas Naval Base at 2 pm on New Year's Eve. The commander of the HASG, COL Tan Chuan-Jin, had caught an earlier C-130 flight to Medan with an advance party.

A Super Puma touches down on *RSS Endurance*, marking a new phase in the relief operation as the LST could now operate a helicopter from her deck. Army personnel from the Sea Terminal Company worked day and night to clear the flight deck of vehicles.





RSS Endurance, a 141-metre long LST and name ship of a class of four LSTs, was home to more than 470 SAF personnel during Operation Flying Eagle.



Well deck operations in the LST allowed fast landing craft to move in and out of the ship regardless of the tide.

You can have a whole shipload of capabilities but if you can't land, you are next to useless.

— COL Tan Chuan-Jin

Plans were rather fluid when *Endurance* left Singapore. After a day and a half at sea, the HASG had a firm destination – Meulaboh. COL Tan wanted to quickly get a feel of the ground situation and to introduce himself to the Indonesian authorities so that the SAF's relief efforts could be coordinated with the TNI's.

He also wanted to see the situation in Meulaboh firsthand and assess the state of its seafront before the LST arrived.

CPT Vincent Yeo of the RSN, who was in the advance party, had the specific tasks of establishing links with the Indonesian Navy, and helping to identify suitable landing beaches at Meulaboh for the landing craft to offload engineering vehicles and relief supplies.

The tsunami had changed the hydrographic conditions and coastline of western Sumatra.

"After identifying suitable landing sites, I had to go into the water to survey the beach gradient and check for underwater obstacles. Once *RSS Endurance* arrived, naval divers would be sent in to clear the underwater obstructions before the fast craft could bring personnel, vehicles and supplies ashore," said CPT Yeo.

Identifying a suitable landing beach became a top priority.

"You can have a whole shipload of capabilities but if you can't land, you are next to useless," said COL Tan. "It was important to find a landing beach. The long coastline had changed but surely there must be some place we could find for our landing craft."

The servicemen and women aboard *RSS Endurance* were kept busy. Lifeboat drills, equipment checks and psychological preparation by counsellors and field psychiatrists kept everyone focused on their upcoming tasks.

The combat engineers and their earth-moving equipment on the ship gave the soldiers a hint of what they would be doing when they arrived in Meulaboh. Their commanders could not give them details of what to expect on the ground; they had to wait for the advance party's report.

The soldiers figured that the lifeboat drill was a sensible precaution. More ominous was the decontamination drill: they had to dip their boots into an empty ammunition box filled with disinfectant before boarding the ship. Anyone

who took a walk on the flight deck could also see two large portable showers. And there were plans to reserve some washing machines for "contaminated uniforms". It was abundantly clear to the men that they could expect to see, and possibly handle, dead bodies during their mission.

Minister for Defence Teo Chee Hean had not waffled when he sent the HASG off at Tuas Naval Base. "When you go there, you will face a very difficult time, because the people there are facing great difficulties. Do your best, take care of yourselves and take care of your buddies. Bon voyage!"

In senior field psychologist MAJ Koh Ta Chua's psychological preparation sessions for soldiers from 7 SIB, his PowerPoint presentation included pictures of dead tsunami victims. He told them that after a traumatic experience, people could be expected to go through the various phases of denial, anger, bargaining, depression and acceptance.

The message was clear – if you needed to talk, there were SAF counsellors and psychiatrists aboard the ship to lend a listening ear.

Ministry of Defence

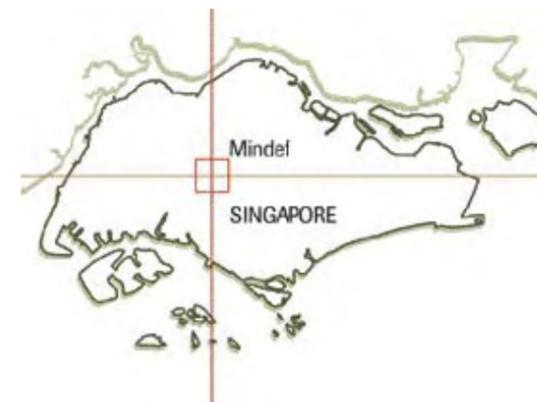
LTC Wong Yu Han, a Branch Head in the Joint Operations Department, was in his Bukit Gombak office on the morning of 2 January 2005. While most Singaporeans were enjoying their three-day weekend, he had to finish the Flying Eagle daily situation report. It was a breeze driving to work early on a Sunday morning.

LTC Wong had finished his morning's work when he received a call from his boss, BG Wong. He was to round up some of his colleagues to start planning the next phase of the operation, even though the LST was still a day away from Meulaboh. They were to prepare a concept, and brief Chief of Defence Force LG Ng Yat Chung.

Experience told LG Ng that tight policy-operations integration was necessary for such a complex multi-national operation. He had been in close consultation with Permanent Secretary for Defence Chiang Chie Foo throughout the operation. There was a meeting that Sunday afternoon, and Mr Chiang and others from the Defence Policy Group joined in.



MAJ Koh Ta Chua, SAF Senior Field Psychologist, holds a psychological preparation session on *RSS Endurance* during the ship's two-day journey to Meulaboh. MAJ Koh and MAJ (Dr) Christopher Cheek Cheng Soon shared the job of briefing every single person aboard the ship on how they could react to traumatic scenes during their mission, so they would be mentally prepared before they set foot in Aceh.



>> Regional Coordination Centre

Responding to the UN's needs early in the crisis, Singapore offered to host the Regional Coordination Centre (RCC) for the UN's relief and reconstruction efforts. As a regional transportation and logistics hub, Singapore was well-placed to play a helpful role. UN Secretary-General Kofi Annan readily accepted Singapore's offer of its ports and airports as staging areas, and of office space and logistical and supply chain management facilities to coordinate the UN's distribution of aid to affected countries.

Although the UN eventually operated out of its existing regional centres, the RCC was used by other international relief agencies, such as the International Committee of the Red Cross. The RCC also facilitated the relief efforts of Singapore NGOs, including the Singapore Red Cross Society, Mercy Relief and the National Volunteers and Philanthropic Council. Nearly 200 aircraft and ships from various countries staged through Singapore on their relief missions.

One critical task of the RCC was to manage the huge quantities of donations that streamed in from all corners of Singapore. This required both logistics expertise and manpower. Commander 6th Division COL Hugh Lim and Assistant Chief of General Staff (Logistics) COL Philip Lim were assigned to take charge. By the end of the operation, the RCC had handled close to 2,000 tonnes of relief supplies.

The meeting discussed how the situation was developing and considered how the SAF could render further help. A coherent framework gradually took shape.

LTC Wong and the JOD staff headed back to work out the details and tie up loose ends. There would be another meeting at 2100h that night to brief Minister Teo Chee Hean, who was keeping close tabs on the mission.

Before the day was over, the key decisions for moving the SAF into the next phase of the operation had been made.

The deployed forces would focus their efforts on creating access into Meulaboh. By opening new helipads, clearing roads, and possibly building bridges and a point of entry by sea, the SAF would facilitate the large-scale movement of relief supplies into the town.

The planners realised that many foreign relief organisations would soon be in the area, and there would be coordination and communications problems between these agencies and the Indonesians. Several SAF officers were bilingual in Bahasa Indonesia and English, and understood both Indonesian and Western culture. They could take up useful roles as coordinators and interlocutors.

The concept for the second phase of OFE was simple and sound. But execution would be a challenge because of the complex situation and the many agencies involved. Success would depend on the flexibility, adaptability and energy of the men on the ground.

■ Monday, 3 January 2005

RSS Persistence, Changi Naval Base

Lessons had been learnt from the logistical complexities of loading *RSS Endurance*. She had sailed from a cold start after 72 hours. *RSS Persistence*, the second LST activated for OFE, was to be loaded differently, especially since the Army and Navy now had a little more time to decide what to put on the ship.

LTC Eddie Tang, Commanding Officer of *RSS Persistence*, had just brought his ship in for a refit when the deployment order came. He ordered the workmen to

reassemble everything they had taken apart. They had to make sure everything worked.

The crew of *Persistence* had been given early warning that they might be activated. They had already quietly started preparing for deployment by drawing the stores they would need for a long trip.

The bow door of *Persistence* faced a fixed concrete ramp that could be used in any tidal condition. There was no chance of a ramp failure here; *Persistence* was determined to depart early.

LTA Mathew Thomas, Operations Officer and Flight Coordinator on the ship, noted: "The ship was given 36 hours. But the officers and crew were mentally prepared to move out anytime."

Her cargo manifest was shorter than the one for *Endurance*, but included items such as four Bronco tracked carriers and a pair of LARC-V amphibious vehicles.

RSS Persistence had orders to keep her flight deck clear so that it could be used for flight operations. It was not yet known when the vehicles on the flight deck of *RSS Endurance* could be offloaded, as the landing beach had not yet been established. *Persistence* therefore had to keep her flight deck open so that RSAF helicopters could land and refuel once she arrived at Meulaboh.

Just as the loggies thought the loading of *Persistence* would proceed smoothly, they saw an item in the manifest that puzzled them. It was a "modular building". No one could tell them exactly how many parts this "18m by 10m" building consisted of. However, they were told that this was one item they could not bump off the manifest.

CPT Garvin Rozario, an Army logistics officer, said: "The engineers and their stores arrived in 11 trucks. Some of the vehicles had their tailgates down, as the building parts were too long. We stood there for a while, figuring out how to load these parts."

CPT Rozario and his fellow loggies eventually found some space for the modular building by moving stores around in the cramped tank deck of *Persistence*. The good news after the back-breaking task of loading the unwieldy parts for the modular building was that these bulky items were making a one-way trip to Meulaboh.



An amphibious Combat Engineer Tractor (top) and LARC-V cargo carrier swam from *RSS Persistence* to shore. The CET cleared debris while two LARC-Vs transported rice and other relief supplies inland.



RSS Persistence loads up at Changi Naval Base.



The Singapore government's military response to the emergency in Aceh has been nothing less than outstanding. It has done a phenomenal job; all the aid agencies and the UN are very grateful for the enormous and fast response the military in Singapore brought to bear on this disaster.

— John Budd, UNICEF Head of Communications in Indonesia

A few weeks later, the Army loggies would watch the Minister for Defence in television news bulletins looking on as the modular building was handed over by Commander HASG to the TNI Commander COL Geerhan Lantara in Meulaboh. Their sense of pride in having played a small part in the endeavour was matched by their curiosity as they scrutinised the news footage to see what the modular building looked like when fully constructed.

FCU landing craft left the LSTs every day just after 0700h. Early risers were often treated to postcard perfect views of the sunrise over the distant Barisan mountain range.



All Systems Go in Meulaboh

① **The Chinook** can fly long distances and can carry 55 people.

② **The ships** were anchored 3.7km away from the shore and were in 200ft-deep waters in case another tsunami struck.

RSS Endurance is a 141-m long, 6,000-tonne landing ship tank.

RSS Persistence landing ship tank

⑨ *RSS Endeavour* landing ship tank

Engineers established a **logistics centre** near the landing sites to store relief and reconstruction items for distribution.

Helicopter landing point

Displaced persons camp, where an **SAF field hospital** was set up.

Bulldozer

Meulaboh Hospital

SAF teams helped clear debris away and filled in potholes on a **5–7km stretch of road** leading from the shore, which was damaged by the waves.

Meulaboh relief centre

Seven helicopter landing points were cleared in the area, with each point large enough for a Chinook helicopter.

Additional points for **sea access** were surveyed.

Amphibious vehicles can move straight from ship to shore on their own power and are ideal in areas with poor sea access and road links.

By Air: When rough seas prevented the use of fast landing craft from the ship, the teams travelled by Super Puma to Meulaboh.

Fast landing craft carrying NGOs and relief supplies

TELCO equipment

Modular building constructed by combat engineers

Almost immediately after the tsunami hit Meulaboh on the western coast of Sumatra on 26 December, the SAF swung into action and focused its relief efforts there. Crucial landing sites, access roads and helipads were made operational and relief poured into the town, which lost 10,000 of its 40,000 inhabitants.

① Relief flown in

30 Dec Chinook flew first large food shipment into Meulaboh.

31 Dec *RSS Endurance* left Singapore for Meulaboh, carrying

- **470 people**, including a 33-strong medical team, SCDF members, combat engineers, divers and guardsmen
- **51 vehicles and heavy equipment** like bulldozers, forklifts, excavators, dump trucks, mechanical shovels and generators
- **350 pallets and crates** of relief supplies

② Ship arrival

2 Jan *RSS Endurance* arrived at Meulaboh. Supplies could move into Meulaboh at 20 times the rate before its arrival.

③ Landing sites set up

3 Jan **Landing sites** had to be set up first because the shoreline was wrecked. To do this, divers first scouted the coastline for possible sites. 45 combat engineers cleared the beach of debris and filled 700 sandbags to build landing points. Once the landing sites were ready, landing craft ferried bulldozers to shore. Bulldozers carried out clearing work. A **field hospital** in Meulaboh was set up at the displaced persons camp. **4 more Chinooks** were deployed to Medan.

④ Refuelling on ship

5 Jan Super Pumas and Chinooks could refuel on *Endurance* after vehicles were unloaded from the ship's deck.

⑤ Second ship arrival

6 Jan *RSS Persistence* arrived at Meulaboh, carrying

- **196 men**, including navy crew, combat engineers and guardsmen
- **heavy equipment**
- **4 containers** of supplies, including 200 cement packets and 27 pallets of rice, water, milk and Milo

⑥ Clean water/Phone service

6 Jan The **portable water-purification plant** started operating. It produced 4,000 litres of clean drinking water daily for refugees in Meulaboh. SAF specialists help an Indonesian firm restore **mobile phone services** in the area.

⑦ Helicopter landing point

8 Jan Combat engineers established the first **helicopter landing point** in Meulaboh.

⑧ Communications restored

12 Jan **TELCO equipment** was brought to POSKO headquarters and handed over to the TNI, to improve the **communications network**.

⑨ Third ship arrival

16 Jan *RSS Endeavour* arrived, carrying **NGOs** and **relief supplies**.

⑩ Modular building completed

19 Jan Combat engineers completed construction of the **modular building**, which was used by the Indonesians to coordinate relief operations in Meulaboh. The building was handed over to the Indonesian authorities on 20 January.

Going home

21 Jan Departure of HASG for home.

We share a common humanity with those who have been hit. We had to act and try to make a difference to them.

Prime Minister Lee Hsien Loong



Making a difference

The 50-hour journey from Singapore to Meulaboh gave the more than 30 men crammed into Mess 8 on board *RSS Endurance* sufficient time to get to know one another better.

The topic of the day was what they should bring ashore.

The SAF signallers tasked to set up communications had to decide how much food and water they would need. They wondered if a bottle of water and a day's combat rations per person would be enough, since they were expected to stay on land for only one night, at a TNI camp.

1SG Stanley Teo, a signals specialist with the 1st Signals Battalion, said the situation reminded him of a scene in the movie *Black Hawk Down*, when a United States Ranger was advised to ditch equipment he did not need.

When the signallers boarded the first landing craft for Meulaboh the next morning, they brought along boxes of combat rations and mineral water. They made sure that everyone would have sufficient food and water for several days, even though the plan was for them to be back on the ship the next day.

Bonding on board

The camaraderie among Mess 8 residents was evident among other elements of the SAF's HASG.

When the second LST, *RSS Persistence*, arrived off Meulaboh, some teams were transferred over to ease the demand for bunk space on *Endurance*.

But the medical team chose to stay in the confined quarters of *Endurance* rather than be broken up. "And this was a bunch of people who hardly knew one another before we sailed. I was heartened by their response," said COL (Dr) Edwin Low, head of the medical team.

Morale was generally high as the SAF personnel had a clear sense of purpose and felt that what they were going to do in Indonesia was worthwhile. While the mission appeared daunting, they knew that they had the right training and equipment to carry out what was expected of them.



MAJ Lam Chee Yuong (top) briefs his combat engineers before they begin building landing beaches at Meulaboh's Teuku Umar beach. The RSN's Naval Diving Unit helped inspect the seabed to mark out underwater obstructions like cars and pieces of broken buildings. LTC Tan Bian, an RSN officer on *RSS Endurance* (now Commanding Officer of *Endurance*), said the muddy waters reminded him of tea with milk.

When I got word that [*Endurance*] was anchored off the shores of Meulaboh, I informed Cabinet Secretary Sudi Silalahi, who in turn informed President Susilo Bambang Yudhoyono. The President was delighted.

— **Bachtiar Chamsyah,**
Indonesian Social Services Minister

Opening up access

The first task for the HASG was to improve air and sea access to Meulaboh. Land links to other parts of Sumatra were closed: bridges had collapsed and some roads were flooded or blocked by landslides.

According to 2WO Wee Kheng Par, a naval diver with 16 years' experience, it was difficult to find a place for the HASG's landing craft to beach because the entire shoreline was cluttered with underwater obstacles from the tsunami.

The naval divers first identified a rocky site near a damaged concrete jetty on Teuku Umar beach. It appeared to be on a part of the shoreline that used to be a coral reef. The combat engineers nicknamed it "Landing Beach Rocky". According to MAJ Lam Chee Yuong, commander of the team of combat engineers, his men used 700 sandbags to shore up "Rocky", but it was still not suitable for heavy vehicles.

The search for a better landing beach continued. The recce team met RADM Dadiiek, the senior TNI-AL commander on the ground. He told them of a sandy stretch of beach 200 metres up the coast where there was a sea wall. It had been partially destroyed by the earthquake, but could still make a good landing beach. He offered to have his personal escort show the divers the location immediately.

The naval divers found that the ground condition and gradient were suitable. However, the beach was littered with debris from the broken sea wall, and obstacles in the water. This was reported to LTC Gregory Goh, Deputy Commander HASG (Naval); the recce team was directed to attempt a landing with their Fast Craft Equipment Personnel (FCEP).

It was successful.

After the opening, the landing beach needed to be expanded. This required part of the remaining sea wall to be broken down by bulldozers. Permission was sought from RADM Dadiiek, who gave the go-ahead.

A Fast Craft Utility (FCU) with a bulldozer on board was despatched. "We used the combat engineers' bulldozer to pull out such things as damaged vehicles and broken concrete pillars," said 2WO Wee. "Then the beach was widened and the offloading of equipment and personnel using our FCEP and FCU could begin."



Combat engineers at work on Meulaboh's shoreline, with heavy equipment unloaded from *RSS Endurance*. The bulk of the work was done by Full-time National Servicemen. The mobility mat or "mobmat" (bottom right) was anchored to the beach to allow vehicles to cross the soft sand without getting stuck.

Singapore's performance shows that even when a huge natural disaster requires a massive and costly response, pinpointed doses of limited aid can yield disproportionate benefits.

Barry Wain, Asian Wall Street Journal



These Singapore-made landing craft needed only half a metre of water to float. Their speed and the size of their cargo deck made them good workhorses for ship-to-shore operations. The larger FCU discharged vehicles and large cargo, while the FCEPs ferried men and smaller equipment and supplies.

“Rocky” was soon abandoned, as the sandy stretch of beach was more suitable for landing. “Landing Beach Sandy” was in operation.

Until then, the only access to Meulaboh was by helicopter. Two Chinooks were first deployed by the SAF on 1 January to airlift medical supplies, equipment and medical teams into the town. With the roads out of commission, opening up sea access meant that much bigger and heavier loads could be brought into Meulaboh. After the two landing beaches were established on 3 January, equipment such as bulldozers and excavators – to clear debris and open access routes – could be unloaded. The town that had been almost levelled by the tsunami and cut off from the world was now accessible again.

Landing sites for helicopters

The landing sites were identified and scouted by a team comprising brigade intelligence officer MAJ Yap Tai Chuan, brigade air liaison officer CPT Lewin Terh Eng Han and Commando officer CPT Eric Low Tow Fai. The Commando pathfinders helped to mark out and prepare the helicopter landing sites. Seven were identified, and later used by helicopters of the various countries and agencies contributing to the disaster relief efforts.

Commando Master Sergeant (MSG) Christopher Peter said: “The sites had to be reasonably big. They also had to be near a road; no point unloading supplies from a chopper when the nearest road is some distance away.”



RSAF helicopter crews had no shortage of helping hands to unload relief supplies.

A Super Puma being guided to land on an LST. On days when sea conditions were too rough for the LSTs to launch their landing craft, RSAF helicopters were given the job of moving people and supplies from ship to shore.

Improvisation and camaraderie

SAF aircrew and air traffic controllers were concerned about the haphazard traffic flow over west Sumatra, and suggested that the management of air routes leading to Meulaboh be regulated. Working with the TNI, they recommended that helicopters flying south from Banda Aceh to Meulaboh fly “feet wet” (over the sea) with their altimeter at even numbers. Helicopters making the return trip to Banda Aceh would fly “feet dry” (overland) and at odd heights.

Said LTC Calvin Ng, Commanding Officer of 125 Squadron, who served as helicopter detachment commander in Indonesia: “Our people demonstrated an innovative spirit. Sometimes they improvised on the spot to accomplish their tasks.”

There was good, tight cooperation across the Services. Sailors volunteered to fly in RSAF helicopters to help distribute supplies, so that the overworked aircrew could take a break. Helicopter technicians doubled up as chock-and-chain crew on the LST so that the navy crew could rest. Whenever a helicopter landed or took off, the chock-and-chain crew had to race into action to secure the helicopter on the deck with chains and wheel chocks, or free it from the chocks and chains. Each LST had one team of sailors trained for this duty, in addition to their other shipboard responsibilities. The uncertainty of helicopter arrivals meant that they had to stand by for hours on end.

With the high tempo of helicopter operations on *Endurance* and *Persistence*, the offer by RSAF technicians to help with this task was welcomed by their Navy friends.

First aid

The 32-member medical team had their work cut out for them.

Before the tsunami, the two hospitals in Meulaboh had 14 doctors and more than 100 nurses. When a head-count was taken after Sunday, 26 December 2004, only four doctors and a few nurses and paramedics were left.

One hospital, built on the coast next to a TNI camp, had been destroyed. In the other hospital farther inland, only 15 of its 100 beds were usable – the mattresses on the other beds had been looted.

The SAF’s field operating theatre, powered by two large generators, was deployed in Meulaboh and quickly put to good use.



The SAF medical team working in a disused farm shed at Alor Penyarang, a camp for homeless people in Meulaboh.

Ironically, the first patient treated by the SAF medical team was an Indonesian lady who was not hurt by the earthquake or tsunami... but by a wild boar attack. The doctors laboured for two hours to sew up her wounds.

Safety first

In Meulaboh, HASG personnel also had to improvise traffic control arrangements because traffic lights did not work and streetlights had been knocked out.

Road safety was a priority. Logistics officer MAJ Abdul Nasir bin Hussein had been tasked to propose the type of vehicles to use for the Meulaboh mission. He read up on the SAF’s experience in its peace support mission in Timor-Leste, before drawing up the vehicle list for his commander’s approval.

“I wanted to be sure that our drivers could drive safely and have zero accidents,” said MAJ Nasir. “So I thought the best way was to go in small, and that’s why we used so many MB290 light trucks. We were not sure of the state of the roads, the width of the roads, and whether they were open.

“Vehicle recovery was another issue. I chose the MB290s, which weigh 1.5 tonnes each, and I insisted that most of the light trucks sent there should have their own winch for self-recovery.”



1SG Chen Kian Chung from 7 SIB checks his Land Rover.

>> Water

“We were told that the water distribution system had been damaged and many wells were contaminated with sea water,” said Mr Ricky Soh, a planner from Joint Operations Department. “One of our priorities was to ensure that the locals had enough clean water for their daily needs.”

The planners decided that one way of meeting the urgent need for water was by water purification. The HASG sent one portable reverse osmosis plant on shore. It produced 4,000 litres of clean drinking water a day.



MSG Derek Ong and SSG Vijay Rajendra Kumar, technical specialists from the 1st Signal Battalion, attend to their satellite dish at POSKO. It provided telephone and data communications to SAF personnel in Meulaboh. Internet access was especially popular, and foreign aid workers regularly asked to use their Internet terminals.

“Hello, can you hear me?”

The SAF signals team helped to coordinate the movement of parts and personnel from Indonesian telecommunications company Telkomsel so that the GSM network in Meulaboh could be repaired. Components as large as a satellite dish were flown in by an RSAF Chinook.

Air Force officer LTC Chin Pak Chuen, who served as operations planner (communications), said: “Telkomsel was very appreciative of our assistance. Their men worked day and night to restore the GSM service. The first thing they did was to ask if our people on the LST could receive their GSM signal.”

“Negative,” came the reply.

Telkomsel then boosted the power of their GSM base stations.

Minutes after the first sailor reported that the GSM system was back, the word spread like wildfire through *RSS Endurance*.

Soldiers rummaged through their bags to look for phone chargers. Mobile phones reappeared and signallers laughed at those who went to the highest point of the ship to get a stronger signal.

“These guys are obviously not signallers,” one chuckled.

Telkomsel restored 56 lines but they were not enough for the flood of calls SAF servicemen tried to make to Singapore.

“A week later, Telkomsel raised the GSM network’s capacity to more than 100 lines. They told us that this was higher than the pre-tsunami level in Meulaboh,” LTC Chin said.

Everyone was happy to call home and hear the voices of their loved ones and to reassure them that they were doing fine in Meulaboh. Although, as Army officer LTA Raihan Husainni said: “Getting a call out was like winning the lottery.” He could not reach his mother, but had more success calling his unit in Singapore, and chatted with his camp mates instead.

Those on board *Endurance* already had free access to a satellite phone, which allowed them one five-minute call to anyone in Singapore. The phone service operated on an honour system and calls were not timed.

Said COL (Dr) Low: “Young soldiers probably don’t know how good things are for them. When I served in a medical mission during the 1991 Gulf War, satellite communications were strictly controlled because of ‘opsec’ (operational security).”

With the GSM network restored, people in Singapore had little difficulty calling SAF personnel in Meulaboh, too.

As LTC Gregory Goh, commander of the naval task group, raced back to *Endurance* aboard a fast landing craft, he received a call on his mobile phone. “My first mobile call in Meulaboh, and it was from a telemarketer who asked ‘Sir, do you have a minute?’”

Relief and resilience

The first medical team had quickly started work in Banda Aceh. They were in a district called Ulee Kareng, about five kilometres from the coast. The sole community clinic there was next to a mosque. It had one doctor and three paramedics, and only a little medicine and dressings left. Camping nearby were several hundred homeless people.

The SAF medical personnel set up their equipment and their primary healthcare team got ready to treat patients. The soldiers had asked the mosque to use its loudspeakers (which usually broadcast the call to prayers) to announce that the SAF medical team would treat everyone who showed up.

Two hours later, LTC (Dr) Fan Swee Weng’s medical team had received more than 100 patients.

“Our arrival was timely and our commander had picked the right location where help was needed most,” said senior combat medic MSG Mazlan bin Mohd Khalid. “The team worked through mealtimes so that we could see as many patients as quickly as possible.

“The locals were grateful that we had come from afar to help them. Our presence gave them hope and comfort. Although our team members were new to each other, we gelled very quickly and worked well as a team.”

On their part, the Singaporeans were impressed by the Indonesians’ stoicism and resilience. A week had gone by since the earthquake and tsunami struck, and the survivors’ wounds had become badly infected due to the lack of medical care.

Combat medic 1SG Sandy Wong said: “There was this little boy I attended to who had a deep cut in his foot. The pain must have been excruciating when I cleaned his wound, but he just gritted his teeth and endured the pain.



After about two weeks, the SAF medical team noted that tsunami-related cases had dropped significantly, and they were seeing patients with ailments like coughs and colds. This indicated that the medical emergency situation in the area was stabilising.

“Only later did I realise that he was the sole survivor in his family and he had walked about two kilometres to seek treatment from us.

“He even thanked me after I finished cleaning his wound. This little boy’s attitude taught me a very valuable lesson about resilience and always looking on the brighter side of life.”

The command room

BG Goh Kee Nguan, Chief Guards Officer and Commander of the 21st Division, commanded the SAF Contingent Headquarters in Medan at the Novotel Soechi Hotel, two kilometres from Polonia Airport. The Contingent HQ directed operations in Aceh, from Meulaboh to Banda Aceh and Medan. It also coordinated with Indonesian authorities, TNI commanders and international relief agencies.

The Contingent HQ ops room operated from a function room in the hotel, working round the clock. The SAF had deployed high bandwidth communications systems in the different locations in Aceh. Operational discussions were conducted through real-time video-conferencing, and the SAF could respond quickly to operational requirements.

BG Goh explained that Medan had been chosen as the more suitable place for the Contingent HQ because “a key consideration was self-sufficiency. Being unaffected by the tsunami meant that Medan could better sustain our operations. And in Medan, we could work closely with TNI-AU and our helicopter detachment, and our civil-military relations teams could also serve the NGOs more effectively. For instance, many NGO representatives who wanted to get into Meulaboh were airlifted from Medan by the RSAF’s Chinook helicopters.”

Although based in Medan, BG Goh spent two-thirds of his 19-day stint visiting Banda Aceh and Meulaboh. “I have never flown so much in such a short time.”

He knew that it was essential to have a good feel of the ground situation by seeing first-hand the progress of the relief operations, instead of sitting in the headquarters leafing through situation reports. Moving around also allowed him to establish contact with key stakeholders and enhance cooperation.



Contingent commander BG Goh Kee Nguan (third from left) finds out how a tsunami survivor is getting along.



The SAF Contingent HQ ops room in Medan.



90 A Thai truck loaded with coffins made of plywood hastily nailed together enters Wat Yan Yao.

Working among the dead

According to SAF forensic dentist, LTC (Dr) Tan Peng Hui, moving through row after row of bodies covered by dry ice was like taking a walk in dreamland.

Except that this was a living nightmare.

The open grounds of Wat Yan Yao, a Buddhist temple in Khao Lak, had been turned into a makeshift mortuary and was filled with rows of bodies as far as the eye could see.

“There was a layer of mist covering the ground because so much dry ice was used,” said LTC (Dr) Tan.

The dentist was part of the disaster victim identification (DVI) team the Singapore government had sent to Phuket. Its mission was to work with other international teams in Phuket to catalogue the dead and draw up a database of physical characteristics of the bodies. This would help bereaved families in identifying their loved ones.

First, the body was tagged. Fingerprints were then captured on a record sheet. Personal items like jewellery, and identifying features like tattoos, surgical scars and hip implants were noted.

LTC (Dr) Tan photographed, examined, X-rayed and documented the dentition of the remains. Two teeth were removed for the extraction of DNA material from their pulp.

“We took the pulp from the teeth because they were protected and a good source of DNA material. We extracted the teeth with the largest pulps, which were usually the molars. These teeth must not be previously treated, though.”

To get to the temple, the Singapore DVI team had to wake up at 0600h every morning. A heavy breakfast followed, as the team members usually had no time for lunch once the post-mortems began. Also, few had the stomach for food amidst the stench of death.

A five-hour mini-bus ride took them to the temple where volunteers did their best to make the foreign teams feel welcome.

“It was wonderful to see this outpouring of community spirit,” said LTC (Dr) Tan. “There was free food and water, free phone calls and Internet access, massages and even free haircuts.

“What we were unprepared for was the scale of the human toll. We saw rows and rows of the dead. The numbers were staggering.





By courtesy of SPH - The Straits Times.
Photo by Nirmal Ghosh.

“The bodies were in a bad condition. Some were caked in mud and had head injuries. There were many young children and babies among the dead. It was impossible to walk in without mask protection even if you had been exposed to forensic work before.”

The DVI team’s motivation to carry on came from the grieving relatives they saw at the temple. They knew that a catalogued body could be sent home when a relative provided information that matched the data from the post-mortem.

The process of forensic dentistry was laborious. It took about 30 minutes to obtain dental specimens from each body. Every day, about 100 bodies from the growing pile were processed.

As the DVI team worked among the dead, the RSAF’s Super Puma and Chinook helicopters flew as far as 100 kilometres out from Phuket Airport, ferrying relief teams and delivering medicine, food and water to stranded Thai communities.

Their day started early too, said LTC Shanmugaratnam, an RSAF senior liaison officer. “We would usually leave for Phuket Airport at 0600h.

“The technicians prepared the helicopters for flight, while others helped to load humanitarian aid and equipment. Pilots and aircrew specialists ran through the missions. They were usually airborne by 0800h.”

The RSAF team flew about four helicopter missions every day as bridges and road links had been swept away by the tsunami.

“All of us felt our heartstrings being pulled,” said LTC Shanmugaratnam.

“We had to contribute in whatever way we could, not only for the Thai people but for all the other nationals and families who had suffered.”

Air traffic control

The serious damage to the control tower at Banda Aceh’s Sultan Iskandar Muda Airport had forced the air traffic controllers to operate out of a tent with poor communications, and even poorer visibility of the runway. The situation was aggravated by the large number of relief flights coming in – a volume of air traffic which the controllers were not used to handling. At the urgent request of the Indonesian Director-General of Air Communications, Singapore agreed to deploy a Mobile Air Traffic Control (MATC) tower until a permanent tower at Sultan Iskandar Muda Airport was constructed.

The key component of the MATC is a container-sized cabin fitted with air traffic control communications devices, which can be raised about four metres above ground level – high enough for the controllers to have a good view of the airport runway.

The question for MAJ Yeo Chiang Meng, Head of the Air Movement Centre (AMC) at Paya Labar Air Base, was how to transport the MATC to Aceh.

AMC is one of the unseen backroom operations centres in the SAF. AMC staff plan how to put cargo onto pallets so that they can be safely and efficiently loaded onto aircraft, coordinate passengers’ departures, and also physically load and unload military aircraft.

“During OFE, there were frequent changes in the cargo loads, the flights and the passengers,” said MAJ Yeo. “Things changed by the hour and it was a challenge keeping up with the changes.”

The round-the-clock workload was so heavy that AMC had to recall some of its Operationally Ready National Servicemen for three weeks. Former AMC officers, warrant officers and specialists who had been posted to other RSAF squadrons were redeployed back to the unit.

MAJ Yeo and several long-serving warrant officers and specialists were sceptical that they could load the MATC onto the aircraft. Thirteen years ago, when the MATC was purchased, an attempt to airlift it in a C-130 had failed.

The MATC had four components: cabin, trailer, generator and a tractor to tow the cabin. The cabin would first have to be detached from the trailer in order to fit into the C-130. Even then, the cabin was too high to fit into the C-130 and parts of it would have to be disassembled. A special piece of equipment called a “TALU” would have to be flown over to Banda Aceh to reassemble the MATC. And, the MATC’s tractor was too heavy for a safe C-130 flight.

MAJ Yeo and his men substituted a lighter tractor. They disassembled and then reassembled the MATC to make sure that it would work in Banda Aceh. The trial was successful, and the MATC components were fitted into two C-130s. The TALU was loaded on to a third C-130.

This was the first time an MATC tower had been successfully airlifted. With no manual to fall back on, MAJ Yeo and his men had to rely on their experience and ingenuity. “We knew how important this was, and I had to make sure that we could deliver,” said MAJ Yeo.

The C-130s landed at 2300h on 7 January. The crew worked overnight, and the MATC was operational by 0500h the next morning.



Indonesian air traffic controllers watched as the MATC was assembled at night, and applauded when it was powered up six hours later.



The crippled Boeing 737 on the only runway at Sultan Iskandar Muda Airport.

The buffalo at the airport

Singapore's political leaders also felt the need to get a first-hand appreciation of the situation. On the day that BG Goh's HQ was set up in Medan, 4 January, Prime Minister Lee Hsien Loong and Defence Minister Teo Chee Hean made a 15-hour visit to Aceh.

But there was an early snag. Singapore's Defence Attaché in Jakarta, COL Yee Cheok Hong, received news that a commercial B-737 freighter had hit a buffalo on the runway at Sultan Iskandar Muda Airport in Banda Aceh. The plane's landing gear had collapsed, and it was stuck on the runway. The air advisory said that the runway would be closed for at least three days.

At 0500h, COL Yee met LTC Tang Tong Seng, an RSAF liaison officer in Medan, for a situation update.

The Governor of Medan and senior TNI officers had asked the SAF to fly a hydraulic jack and airbags to the airport so that the B-737 could be moved off the runway.

An RSAF Chinook crew was scrambled and the helicopter took off from Medan at about 0830h with 3.5 tonnes of recovery equipment. It landed in Banda Aceh at noon. Five hours later, the runway was back in business and Sultan Iskandar Muda Airport was declared open.

During the emergency relief phase, about 170 aircraft used Sultan Iskandar Muda Airport daily. The speedy despatch of the recovery equipment had made it possible for flight operations to resume two days earlier than expected, and enabled 340 humanitarian aid flights to come in without delay.

LTC Tay Boon Khai, the SAF team leader in Banda Aceh, said: "Everybody was jubilant.

"Although we are a small country, we made a big difference in the emergency relief phase. We were able to respond quickly and provide what was needed on the ground because of our close coordination with the TNI."

The friendship and trust forged between the SAF Contingent HQ and the TNI forces in Medan had proved crucial again.

A VVIP passenger

The cabin of the RSAF's four-engine KC-135R aerial refuelling tanker had never looked so nice.

Technicians from Singapore Technologies Aerospace were given only three days to reconfigure the tanker as a transport plane for a VVIP. Airliner seats were bolted into the cabin floor and the interior spruced up with carpeting. A table and a reading lamp were added so that the VVIP could work. A curtain screened off the galley area.

The tanker from 112 Squadron, commanded by MAJ Sivaraman Rajan, had been tasked to fly UN Secretary-General Kofi Annan to tsunami-hit countries around the Indian Ocean.

The KC-135, call-sign Singa 8503, picked Mr Annan and his 20-member delegation up in Medan and flew him to Sri Lanka, the Maldives and Mauritius.

But transport for the Secretary-General was first provided in Aceh by the RSAF's Super Pumas.

LTC Calvin Ng, pilot of Singa 279, said that when they were over Meulaboh, Mr Annan asked the Super Puma to fly lower. They were then cruising at about 500 feet.

"So I brought her down to 100 feet," said LTC Ng. "Along the coast, we saw body bags lying all over the place."

He did not know it then, but the narrow promontory at Meulaboh he flew over that day was the site of a mass grave.

After observing the relief efforts in Aceh, the UN chief boarded Singa 8503 for Sri Lanka. He stayed there overnight, then flew on to the Maldives, and from there to Mauritius.

MAJ Sivaraman Rajan said: "Mr Annan was very appreciative that our Prime Minister had offered him and his team a ride on our KC-135R. He said that this had enabled him to meet the objectives of his visit in a fruitful manner."



UN chief Kofi Annan (holding coat) visited tsunami-hit areas on an RSAF KC-135R tanker.

>> Operation Lion Heart

Operation Lion Heart is the codename for SCDF rescue missions overseas. The rescue contingents are on standby, ready to go into action 24 hours a day, every day.

After the tsunami, the SCDF activated Operation Lion Heart and sent its teams to Indonesia and Thailand. They were brought there by the RSAF's C-130s, which also ferried light vehicles, rescue equipment and medical supplies for the Lion Heart contingents.

The two-week operation was the SCDF's biggest-ever overseas mission. Over 130 SCDF personnel went into action in Banda Aceh and Phuket.

The RSAF's helicopters gave Lion Heart personnel much-needed mobility around the disaster areas. With the helicopter transportation, the SCDF rescue teams could reach their search areas rapidly and sustain their operations in remote areas.

On New Year's Day 2005, Minister for Home Affairs Wong Kan Seng (second from right, in blue shirt) was in Phuket and Khao Lak to see the relief work of the SCDF and SAF teams.



By courtesy of Singapore Civil Defence Force.



By courtesy of SPH - The Straits Times. Photo by Ong Chin Kai.

>> Special ASEAN summit

Four days after the disaster, Prime Minister Lee Hsien Loong proposed a special ASEAN summit meeting to develop an action plan for relief assistance. The Special ASEAN Leaders' Meeting in Jakarta on 6 January was attended by leaders of 20 countries and six international organisations, and chaired by Indonesian President Susilo Bambang Yudhoyono. Those who attended included the Prime Ministers of Australia, China, and Japan, the US Secretary of State and the UN Secretary-General.

Prime Minister Lee's call on the UN to coordinate the immediate relief efforts and resources, put in place an international tsunami early warning system for the Indian Ocean, and sustain the political will for the longer term reconstruction effort, found wide support among the leaders at the meeting. They also welcomed debt relief and a freeze on external debt repayments for countries hit by the tsunami.



By courtesy of Associated Press.

I was overwhelmed by the endless and total devastation, the smell of death hanging in the air, and the sense of the deep loss and shock of the survivors. But amidst the pain, fear and despair, I also saw the resilience of the human spirit.

— Prime Minister Lee Hsien Loong

>> Prime Minister visits Ground Zero

Prime Minister Lee Hsien Loong visited Meulaboh and Banda Aceh on 4 January for a firsthand look at the devastation caused by the earthquake and tsunami, and the relief efforts being carried out by the SAF. He was accompanied by Defence Minister Teo Chee Hean.

Touching down in an RSAF helicopter on a temporary airfield in Meulaboh that was once a soccer pitch, PM Lee and Minister Teo were welcomed by Indonesia's Coordinating Minister for Social Welfare, Professor Alwi Shihab.

"We have seen the images on TV, but it's not the same as being there, talking to the people, seeing firsthand the devastation, the houses that have been knocked down, and the towns that are no longer there, and the people pulling themselves up and getting back on their feet again," PM Lee said.

In Meulaboh, PM Lee was briefed by the local TNI commander, COL Geerhan Lantara. He then visited the SAF medical team at its field hospital in the city centre, observed SAF engineers working with the TNI to clear the roads of debris, and went on board *RSS Endurance* to be briefed on the SAF's work in Meulaboh.

Speaking to the SAF commanders on the ground, PM Lee said, "You need to work closely with the Indonesian authorities to see what is needed, and also, so they can take over when you have done your part."

PM Lee's visit was the first by a foreign leader to the disaster zone in Indonesia and it gave considerable weight to his message at the Special ASEAN Leaders' Summit meeting in Jakarta two days later. Addressing the leaders at the summit, including UN Secretary General Kofi Annan, PM Lee recounted his experience in Meulaboh and Banda Aceh.

"I was overwhelmed by the endless and total devastation, the smell of death hanging in the air, and the sense of the deep loss and shock of the survivors. But amidst the pain, fear and despair, I also saw the resilience of the human spirit," he said.



By courtesy of SPH - The Straits Times.





Transition to recovery



An Army Guardsman joins a soccer game at Preumbeu, which housed homeless Indonesians in Meulaboh.

LTC Bernard Yeo, head of logistics at the SAF Contingent Headquarters in Medan, bought a tourist map from a shop in the lobby of the Novotel Soechi Hotel. He and his team of Army logisticians noted that there was a route out of Medan that led to a coastal road which approached Meulaboh from the south.

They did not know if heavy vehicles could use this route, although the Indonesian authorities were carrying out repairs. Drivers and an armed escort for two 10-tonne lorries were hired – the trucks would be travelling through territory where Gerakan Aceh Merdeka (Free Aceh Movement) separatists were active.

Loaded on the lorries were tins of milk powder and an assortment of other relief supplies. The consignment was addressed to MAJ Abdul Nasir. When everything was ready, the logisticians sent the trucks on their way. The destination: the POSKO (TNI command post) in Meulaboh.

The loggies did not hear from the convoy for the next 56 hours.

When the telephone call from MAJ Abdul Nasir came through to the SAF HQ in Medan, the good news went right up the chain of command.

At the information centre run by the SAF in Medan, an announcement went out to all the non-government organisations (NGOs): the road to Meulaboh was open.

Children at Preumbeu listen as SSG Muhamad Azam bin Aziz, a liaison officer, entertains them with stories.



Motorcyclists queue patiently for bottled petrol in Meulaboh, while vegetable stall holders resume business.

Return to normalcy

Lance Corporal (LCP) Muhammad Nur Hidayat, a driver with the 1st Transport Battalion, was encountering traffic jams as he headed inland from Jalan Teuku Umar at the beachfront, where SAF vehicles were parked near Landing Beach Sandy.

The Full-time National Serviceman was tasked to make runs to and from Preumbeu – a camp for internally displaced persons 10 kilometres from Meulaboh – to ferry the homeless and their belongings to their temporary home.

His vehicle commander was 1SG Mohamed Amran, a platoon sergeant with 1st Guards Battalion.

They had already made several smooth runs to Preumbeu, and the TNI coordinating officer decided that they could go off on their own without an Indonesian escort.

The area outside Meulaboh's town centre was scenic, with spreading rice fields fringed by the Barisan mountain range.

LCP Hidayat and 1SG Amran knew that it was considered rude in local culture to turn down offers of food, and were quite happy to sample Indonesian cuisine whenever the chance arose.

The SAF personnel in Meulaboh knew that it was a good sign when the locals started offering them fresh food. They joked among themselves that Meulaboh residents had better food than their staple of rice with fish fingers or chicken patty, broccoli and baked beans.

The situation in Meulaboh had improved vastly since the SAF started its humanitarian assistance and relief operations. Raw statistics compiled by various components of the HASG supported anecdotal evidence and casual observations of the SAF personnel.

The civil-military relations (CMR) team counted only four NGOs in Meulaboh on Sunday, 2 January. Two weeks later, the number had ballooned to 40 teams with more than 500 relief workers.

The SAF medical team started with 70 per cent of its caseload made up of people with tsunami-related injuries. Now, such patients comprised only 10 per cent of their caseload.

An informal census by the team indicated that there were so many medical personnel in Meulaboh, some of them were jostling for patients to treat.





Facilitating the NGOs' work

The efforts of NGOs operating in Aceh were coordinated through meetings facilitated by SAF soldiers in Medan, Banda Aceh and Meulaboh.

At these daily sessions conducted in English, the OFE relief coordinators would catalogue the skills brought by the NGO workers, such as the various medical specialisations in a medical team. They also asked whether the NGOs needed assistance, and of what kind, from the SAF.

In Meulaboh, the SAF's CMR team convened its meetings at 0800h, so that the NGOs would have a full day ahead to carry out their relief work.

The NGO relief workers were committed but many of their organisations lacked the experience to operate effectively in such a massive disaster relief operation.

Teams that arrived without maps, vehicles or knowledge of Bahasa Indonesia found the sessions invaluable, as they could be linked up with Indonesian NGOs. The SAF also provided vehicles to move stores and NGO relief workers around Meulaboh.

This contribution was not lost on Daniel Augstburger, the United Nations' senior emergency adviser in charge of organising UN operations in western Sumatra.

"The SAF played a key role in making transportation assets available in Banda Aceh and Meulaboh. Singapore Air Force helicopters also maintained the air bridge from Medan," he said.

"In terms of manpower, Singapore forces have played a key role in opening a civil-military relations cell, and this has been a very useful exercise for the Indonesians in working with foreign NGOs."

Head of the CMR team, MAJ Tan Heng Kiat, said: "We felt that the meetings were necessary so that there would be no duplication of efforts by the NGOs. We also introduced newly-arrived NGOs to the other teams. If not for this effort, we would probably not have been able to complete our mission so quickly."

COL (Dr) Edwin Low, head of the SAF medical team in Meulaboh, also decided that it would be useful to get the medical teams at Meulaboh's Rumah Sakit Umum or RSU (general hospital) together so that each could get a better sense of what the other teams were doing. COL (Dr) Low was a veteran of SAF missions to the first Gulf War and the 1990 Baguio earthquake in the Philippines, and he appreciated the value of good coordination.



Contingent commander BG Goh Kee Nguan briefing Singapore Red Cross chairman Winston Choo on the situation in Aceh.

The SAF played a key role in making transportation assets available in Banda Aceh and Meulaboh.

— Daniel Augstburger,
UN senior emergency advisor



>> The Parliamentarians' visit

On 13 January, a group of Singaporean and Indonesian parliamentarians visited Meulaboh and Banda Aceh to take a look at the relief efforts and projects being carried out by the TNI and SAF.

The Singapore MPs, led by Minister of State for Defence and National Development Cedric Foo, were members of the Government Parliamentary Committees on Defence and Foreign Affairs, and Health. The Indonesian MPs represented the various commissions in the House of Representatives (DPR), led by Dr Sidharto Danusubroto.

Dr Danusubroto said the visit had confirmed what he had earlier heard about the SAF's professionalism, and the good working relationship between the SAF and TNI on the ground.



His men went round to ask teams from the International Committee of the Red Cross, Indonesian Red Cross, Médecins Sans Frontières, and medical teams from Japan and South Korea to join this informal meeting. Everyone showed up, and what was intended to be an informal meeting soon morphed into a more structured daily affair.

"The meetings were not planned, but they turned out to be a critical part of the operation," said COL (Dr) Low.

During these sessions, the doctors would discuss their caseloads and seek the assistance of medical specialists among the other teams.

The meetings also provided the opportunity to exchange stores.

"We had a whiteboard which was like the local eBay," said COL (Dr) Low.

"People could list what medical items they required and what they could offer."

Working with Singapore NGOs

The massive disaster had brought an outpouring of compassion from Singaporeans. Many donated generously and the Singapore Red Cross collected S\$84 million in its tsunami relief fund. Companies and private organisations pitched in and contributed equipment such as water purification sets and power generators. Apart from raising funds, various NGOs such as Mercy Relief, Touch Community Services and Ren Ci also despatched volunteers to Meulaboh and Banda Aceh. Many other Singaporeans with specialised skills, such as doctors, nurses and pharmacists, volunteered their services.

Having established a presence in Meulaboh and Banda Aceh, the SAF was in a position to assist the Singapore NGOs. The SAF's two liaison teams in Meulaboh and Banda Aceh provided the interface between the NGOs and the Indonesian authorities. The good working relationship that the SAF had established with the Indonesian authorities facilitated the NGOs' entry and operations. The NGOs were able to orientate themselves quickly to the situation and direct their efforts to where they were most needed. They identified useful reconstruction projects, such as helping to set up camps for the thousands of displaced people and rebuilding schools and hospitals.



Volunteers from *RSS Endeavour* (top left) step ashore after a two-day journey from Singapore, while an FCU unloads a light truck donated by the Singapore Red Cross.

As most of the NGOs lacked their own means to transport relief supplies and personnel, the SAF was called upon to support their transportation needs. RSAF helicopters helped to ferry personnel and medical teams from the Singapore Red Cross and Mercy Relief to the disaster zones, while C-130 aircraft were used to transport supplies and vehicles, including two Red Cross ambulances.

On 14 January, Minister for Defence Teo Chee Hean and Acting Minister for Community, Youth and Sports Dr Vivian Balakrishnan sent off a third LST – *RSS Endeavour* – to Meulaboh. *Endeavour* carried 67 volunteers and 100 tonnes of supplies and equipment collected by the Singapore Red Cross, Mercy Relief and the Indonesian Embassy in Singapore. This included tents for 10,000 people, food for 500 families for a week, and 1,000 school kits for the children.

MAJ Yap Chee Eng, Commanding Officer of *Endeavour*, said: "We were kind of privileged, compared to *Endurance* and *Persistence*. We were the last LST to be deployed, so our ship was the most prepared. We were ready and eager to go when we saw our two sister ships leaving for their mission."

Endeavour arrived at Meulaboh on 17 January. By this time, conditions had improved significantly and life was fast returning to normal. Electricity and telephone lines had been partially restored and some shops and markets had reopened. There were even some traffic jams, as LCP Hidayat had observed. The roads to Medan and Banda Aceh had also been opened, allowing heavy equipment and supplies to reach Meulaboh over land.

When he sent off *Endeavour*, Defence Minister Teo had observed that the situation in Aceh was stabilising, and the Indonesian authorities and military were managing well. "They are now moving from the emergency relief phase into the reconstruction phase [and] after consulting closely with the Indonesians, we are also moving our efforts in that direction."



The Transition

Working from their makeshift coordination centre at POSKO, the TNI and other Indonesian agencies were busy coordinating the efforts of the various NGOs now streaming into Meulaboh. International relief agencies had arrived, including the International Red Cross. Specialised UN agencies like the Office for the Coordination of Humanitarian Assistance and World Food Programme had set up shop.

Although the situation in Meulaboh was looking up, much remained to be done. The TNI had embarked on a project to build 24 IDP camps to house the thousands made homeless by the earthquake and tsunami. And that was just the beginning. Schools, hospitals, and orphanages had to be built. The reconstruction of Meulaboh would take years.

With the focus of the Indonesian authorities shifting from emergency relief to rehabilitation and reconstruction, the SAF's mission to provide emergency relief was nearly over. The SAF's specialised capabilities, so critical in the immediate aftermath of the disaster, were now no longer as vital.

The SAF concluded that it was time to go home. After consulting the TNI at the highest level, the SAF left three Chinooks in Medan and a liaison team in Banda Aceh, as they were still making a useful contribution. It would be more relevant and useful for the NGOs to take over.





The Singapore Red Cross and Mercy Relief, as well as other NGOs, had visited Meulaboh and Banda Aceh, and were assessing how best they could take over from the SAF. The medical facilities that the SAF had set up in these two towns were a natural place to start. The SAF began preparations to hand over these facilities to the medical teams from the volunteer organisations.

Although the overland routes were open, air and sea access to Meulaboh remained important. The two landing beaches and seven helicopter landing sites that the SAF had built needed to be improved so that they could still be used in the rehabilitation and reconstruction phases. SAF engineers were on it immediately.

With international organisations descending on Meulaboh, the task of coordinating the reconstruction efforts was now a matter of priority. Many buildings in Meulaboh had been destroyed, including the TNI's main headquarters. Coordination efforts were being conducted from a small sub-unit command post, and it was clear that this was inadequate. The TNI and Indonesian authorities sorely lacked a relief coordination centre. The SAF felt that providing such a facility would be a useful contribution and began constructing a 1,500 ft² modular building for this purpose.

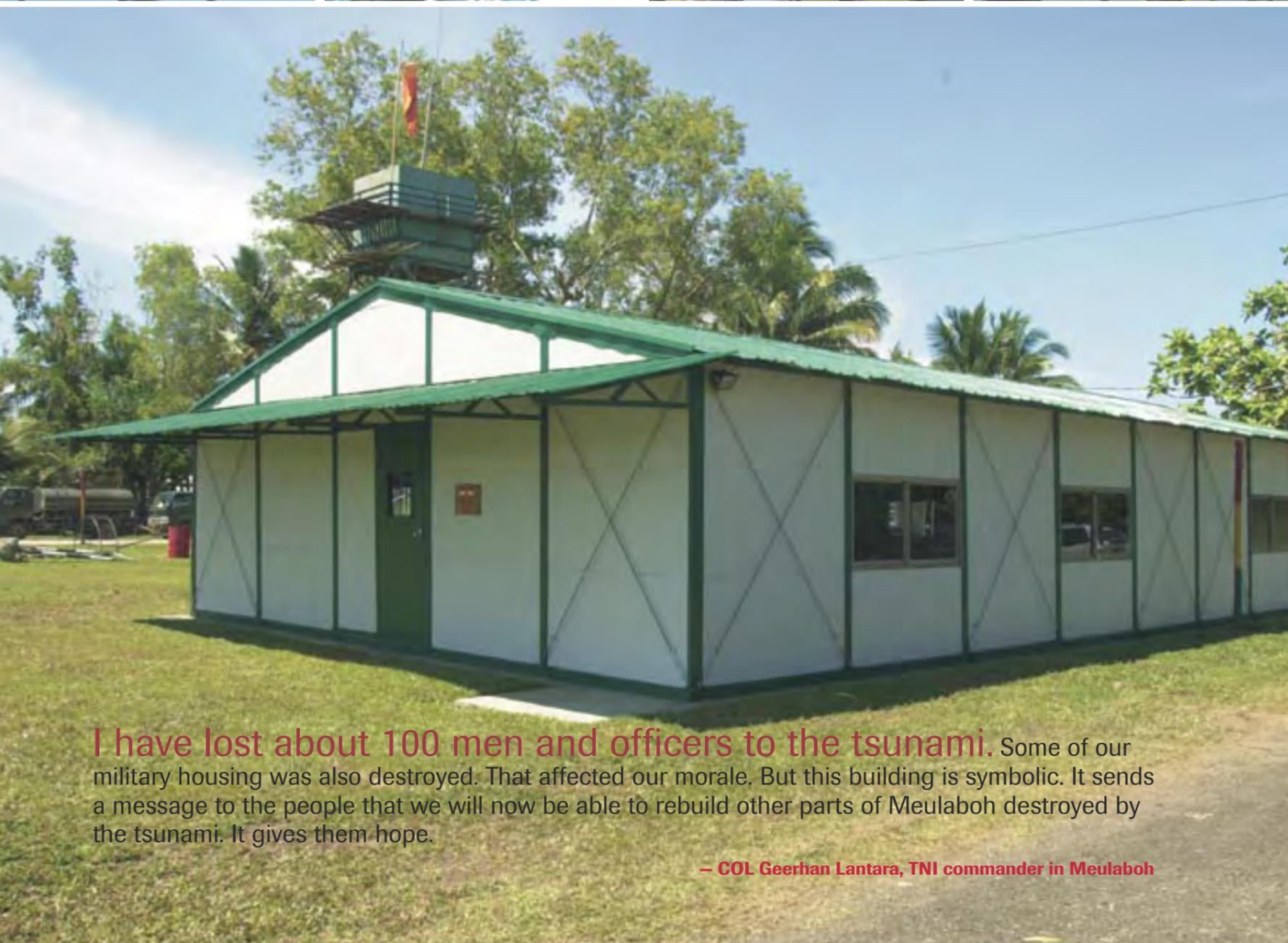
On 20 January, Defence Minister Teo Chee Hean arrived in Meulaboh for a ceremony to mark the transition from the emergency relief phase to the recovery phase. He was accompanied by Dr Vivian Balakrishnan, Acting Minister for Community, Youth and Sports, and representatives of the Singapore Red Cross, Mercy Relief and the National Volunteer and Philanthropy Centre. Mr Teo was warmly received by Indonesian Social Affairs Minister, Bachtiar Chamsyah, and the local TNI commander COL Geerhan Lantara.

Driving around the town, it was obvious that the situation in Meulaboh had improved greatly. The streets were cleared of rubble and heavy with traffic, the markets were bustling with activity. At the local hospital, the Mercy Relief medical team was at work. The volunteers who had arrived on *Endeavour* a few days earlier were busy helping to set up one of the IDP camps.

"The words that Colonel Geerhan said to me when I came to Meulaboh just over two weeks ago stick in my mind. He said that when our people first arrived here, it lifted his spirits to know that the people of Meulaboh were not alone," recalled Minister Teo during the transition ceremony.



Indonesia's Social Affairs Minister, Bachtiar Chamsyah, shows Defence Minister Teo Chee Hean around Meulaboh on 20 January. Mr Teo first visited Meulaboh on 4 January, and was back to see firsthand the results of the SAF's humanitarian mission.



I have lost about 100 men and officers to the tsunami. Some of our military housing was also destroyed. That affected our morale. But this building is symbolic. It sends a message to the people that we will now be able to rebuild other parts of Meulaboh destroyed by the tsunami. It gives them hope.

– COL Geerhan Lantara, TNI commander in Meulaboh

“The SAF is privileged to have been able to work very closely with our Indonesian friends to provide emergency relief assistance. The Indonesian authorities are now transitioning from the relief phase to the recovery and reconstruction phases. Singapore’s assistance will move in tandem with your priorities.”

The simple ceremony symbolised this transition. Singapore’s humanitarian relief assistance would soon be spearheaded by the Singapore Red Cross, Mercy Relief, and other relief agencies and volunteer groups. Over the next few days, the SAF would redeploy its assets and personnel back to Singapore, except for a detachment of three Chinooks that would stay behind to meet critical transportation needs.

The ceremony included the handover of the modular building, which the Indonesian authorities would use as a coordination centre, by Commander HASG COL Tan Chuan-Jin to COL Geerhan. The SAF also symbolically handed over to the TNI the various facilities that it had constructed, such as the helicopter and beach landing sites.

Wrapping up in Phuket

The situation in Phuket had stabilised quite rapidly because civil infrastructure like the airport was largely intact. The Thai authorities had also deployed massive resources, and the emergency relief phase was quickly completed. Schools were reopened, bridges repaired, and roads cleared of debris so they could be used again. There was no longer a critical need for the RSAF’s helicopters. The two Chinooks returned to Singapore on Tuesday, 4 January 2005. A week later, the two Super Pumas also returned.

LTC (Dr) Tan Peng Hui, the SAF forensic dentist, returned to Singapore when a second DVI team replaced the first one after two weeks.

“Our experience has given the forensic team the confidence to deal with a mass casualty disaster should it ever happen in Singapore,” LTC (Dr) Tan said. “We had a lot of book knowledge, but Phuket offered us real-life experience and valuable insights into how to organise ourselves, and how to handle and process large numbers of casualties.”

The new relief coordination centre in Meulaboh, constructed by SAF combat engineers.

>> Meeting the President



By courtesy of SPH - Lantara Zuhro.

On his way back from Meulaboh, Minister Teo met President Susilo Bambang Yudhoyono by chance at Medan when they were both transiting through the airport. President Yudhoyono had just arrived from Jakarta and was en route to Banda Aceh.

The President expressed his appreciation for the rapid and substantial emergency assistance provided by the SAF to those areas in Aceh that had been cut off. He noted that the close relationship built up over the years between the TNI and SAF in their bilateral training and exercises had made possible the effective collaboration during the crisis.

The SAF is privileged to have been able to work very closely with our Indonesian friends to provide emergency relief assistance... Singapore's assistance will move in tandem with your priorities.

— Defence Minister Teo Chee Hean



Winding down in Banda Aceh

The first SAF medical task force in Banda Aceh was rotated after 15 days. Task Force Commander LTC Tay Boon Khai was replaced by LTC Lawrence Teh, another graduate of SESKO-AD.

By the time LTC Teh took over, the medical team had moved out from Ulee Kareng to a TNI basic military training camp called SECATA.

“We felt the medical needs in SECATA were greater as there were more than 2,000 people camped there with minimal medical support,” LTC Tay said.

Even so, the declining medical caseload was good news to the SAF medical team. More NGOs had also started operations in Banda Aceh's Zainal Abidin Hospital. These included volunteer doctors and nurses from Singapore's Alexandra Hospital, as well as church volunteers.

“We knew the emergency relief phase was coming to an end,” said LTC Teh. “The Indonesians also accepted that military forces were useful only in the emergency relief phase because they could mobilise and respond quickly. When that phase ended, they agreed that civilian agencies and NGOs could play a more significant role.”

Contingent Commander BG Goh Kee Nguan noted that activity in the streets of Banda Aceh had picked up considerably. Many *warungs* (roadside food stalls) had reopened.

“I was glad to see a significant part of the marketplace open for business,” he said. “You could see more varieties of vegetables on sale, and meat too. That was a clear indicator that things were returning to normal.”



>> *Korban*

HASG soldiers who tried buying some livestock using their US dollars found that Meulaboh's farmers did not accept that currency. Credit cards were out too.

So an officer flew to Medan on a Chinook, with a stack of US dollars, to get the money changed. The equivalent amount in Rupiah was stuffed into a box, secured with masking tape. LTC Denis Tham of the RSN was given the task of escorting this box back to *Endurance*.

At a farmyard in Meulaboh, a farmer patiently counted the pile of rupiah before handing over 20 water buffalos.

Hari Raya Haji was around the corner and the buffalos would be the HASG's contribution to the local *korban* ceremony, a highlight of this special day for Muslims.

Reflections and homecoming

Defence Minister Teo Chee Hean made two trips to Aceh to meet Indonesian officials and to assess the situation.



The SAF personnel who served in OFE came through the experience with a better appreciation of life and of their families.

BG Goh Kee Nguan, the Contingent Commander, said: “Many of us were activated and left at very short notice. Our families had to take care of themselves – pick up what we dropped. When we returned, we were so grateful for the support of our loved ones. And so grateful for what we have, which we often take for granted.”

Lives on hold

2WO Wee Kheng Par, a naval diver, just wanted to spend New Year’s Eve with his family after missing the occasion two years in a row, having been away on deployment.

“But when I was told that I would be deployed for OFE, and we realised how bad the situation at Meulaboh was, my family’s disappointment disappeared and we felt that we should make this small sacrifice.”

1SG Irene Ng, a senior medic at Paya Lebar Air Base medical centre, was newly married and just settling into the routine of married life when she was activated. Her husband, Lim Yick Chong, was so proud of her contribution that he wrote a letter to the *Straits Times* to express his feelings.

“At first, I was worried for her safety, especially with the aftershocks that hit the region. But as the days went by, I learnt that safety is a priority for the SAF and Irene was alright.



“We had just got married and it was painful for me to be apart from my wife. But I realised my pain was nothing compared to the suffering of the people in Meulaboh. And Irene was there to help those who had literally lost everything.”

The speed with which SAF personnel were being deployed for OFE caused some military families to fret over whether their husband or father would be the next to go.

COL Phua Huat Chuan, the Deputy Contingent Commander in Aceh, remembered calling his wife one evening to say he would not be going home. Work on OFE was round-the-clock.

“My wife is a worrier. When I told her I could not come home, she said immediately, ‘Don’t tell me you are going to Indonesia and not telling me about it!’”

Many OFE flights from Singapore took off at dawn. The aircrew, ground crew, and passengers all had to report for duty well before sunrise.

COL Phua left his home at 0400h for the flight to Medan. He sneaked a look at his sleeping children before bidding his wife goodbye.

“When I came home a few weeks later, my son Lester said he was very disappointed with me. Why? Because I didn’t wake him up to say goodbye before I flew off to Indonesia.”

SAF counsellor Azman Anuar had queued up to use the free phone service on *Endurance* to call home on 11 January – the birthday shared by his two daughters, aged nine and seven.

“It was about 2200h on the ship. I forgot that Singapore time is one hour ahead and by the time I called to wish the girls ‘Happy Birthday’, they were already fast asleep.”

Several fathers-to-be were sent into action too.

LTC Lawrence Teh, the second mission commander in Banda Aceh, missed his wife’s birthday on 21 January. But he had a surprise for her – he arranged by Internet advance booking for flowers to be delivered. And when he came home, his wife’s happiness and relief overflowed. Their second son was born a few days later – three weeks early.



1WO Kalai Selvan, a liaison officer with the Civil Military Relations team, chats with Indonesians queuing patiently at Preumbeu for supplies donated by the Singapore Red Cross. SAF and TNI personnel, seen here in Meulaboh, worked hand-in-hand to speed up disaster relief in Aceh.

Lessons in resilience

The OFE personnel knew that their inconvenience was nothing compared to the suffering of many Indonesian victims of the disaster. They were most impressed, and moved, by the resilience displayed by the Indonesians.

Many TNI soldiers who had lost loved ones carried on with their duties, and their determination to help fellow survivors despite their personal losses inspired many SAF soldiers.

COL (Dr) Edwin Low recalled a TNI soldier who was driving him around Meulaboh. "I learnt that he had lost his home, and one of his children was missing. But he returned to work to help others instead of going off to look for his child.

"As a parent myself, I realised how difficult this must have been for him. Later on, I found out that there were a number of them in a similar situation. I salute their dedication to duty to help others first."

MAJ Nur Effendi, an SAF liaison officer, had a similar experience. "I met a TNI officer whose daughter was still buried in the rubble of his house, and he was back at work. His wife had been sent to Jakarta for treatment, but he had to remain behind to help with the disaster relief operations. He told me that he had spiritually returned his daughter to God and was assured that she was in a better place."

MAJ Effendi could see the tears welling up in his eyes as he spoke. "I could only wish him strength, and in retrospect, I think work was the only thing that kept him sane."

LTA Alan Soh, a signals officer, said one of his most vivid memories of Meulaboh was a conversation he had with a TNI soldier. "He told me he had lost eight of his family members to the tsunami. He was so regretful and remorseful that he had not appreciated them when they were around. This changed my perspective on life. I know now that I should always appreciate what I have."



Local children looked upon MAJ Nur Effendi, a liaison officer with the Civil Military Relations team, as their "teacher". Start School Packages packed by Singapore donors were delivered to Meulaboh by RSS *Endeavour*.

Long hours at sea

Not everyone who was sent to Meulaboh in OFE set foot on shore. LTC Gregory Goh, commander of the Naval Task Group, estimated that only a quarter of the crew of the three LSTs went ashore. Some were stretcher-bearers, others were beach masters who coordinated the flow and movement of men, supplies and vehicles from ship to shore. The rest remained on board to maintain ship operations. There were also many Army personnel whose jobs kept them aboard the ships.

Almost all the officers and men from 195 Squadron, the Navy's fast craft squadron commanded by LTC Goh, never went ashore at Meulaboh. "The men were working 14 to 16 hours a day, and at times, even more. I was most gratified that morale and motivation remained very high among the crews on the fast craft despite the hectic work and difficult sea conditions."

Fast landing craft operators like SSG Max Yeo, an FCU coxswain, made numerous trips each day, although he never got beyond the shoreline of Meulaboh. Landing craft operators were among the earliest roused for duty on the LSTs, and often the last to go to bed after the day's operations.

On one occasion, rough seas forced two FCUs to remain at sea for 21 hours. The crews had been on duty since 0600h and were returning to the ship when sea conditions turned bad. "The two FCUs had to stay close to the landing ship almost the whole night. To make things worse, it started to rain heavily and they were soaked to the skin," LTC Goh said.

The mother ship recovered the fast landing craft only at 0300h the next morning after the waves died down.

"The spirit that the two crews displayed during those 21 hours bore testimony to the commitment that most of our men displayed throughout the mission," said LTC Goh.

CPT Derrick Chan, a navy officer on *RSS Endurance*, said: "Many of the ship's crew concentrated on running shipboard operations day in and day out. Those who went ashore could see how much our contributions meant to the tsunami survivors. When they shared their experiences with the rest of us, it helped us understand the importance of our work in Aceh and what it meant to the local people."



Indonesian and Singaporean Muslims exchanging Hari Raya Haji greetings.



Saying goodbye

On Friday 21 January, which was Hari Raya Haji, the HASG handed things over to the TNI and the NGOs and returned to Singapore. By then, the medical team in Banda Aceh had already wound down its operations. The SAF Contingent HQ in Medan was also packing up.

The day began with prayers at dawn for Muslim servicemen. Many had never been away from home on Hari Raya Haji.

PTE Mohamad Fadli bin Mohd Noor, a Full-time National Serviceman with 7 SIB, said that he knew the HASG had done its job in Indonesia, but he was not quite ready to call it a day.

“If there’s a chance to stay, I’d stay. My parents are there for me in Singapore, but many people here have lost their families. I’m glad I was here to help them.”

PTE Fadli was not alone in feeling this way.

SSG Ravi Rengasamy, an aircrew specialist deployed to Medan, said: “Somehow, one part of me wanted to stay longer to help, but it wasn’t my call. So I was a little sad when the time came for us to depart.

“Overall, I’m glad to be part of the team that, in a small way, helped to do some good.”

As part of the farewell, about 100 SAF personnel joined TNI soldiers in a memorial ceremony at a mass gravesite.

COL Geerhan Lantara, commander of the local TNI garrison, and COL Tan Chuan-Jin, HASG commander, each laid a wreath in memory of those who had died.

COL Tan boarded the fast landing craft only after all the men and vehicles had embarked. He had arrived in Meulaboh ahead of his men and was now the last man off the beach.



Dawn prayers at POSKO on Hari Raya Haji (main picture, left) and a remembrance ceremony held by the TNI and SAF at a mass grave on the beachfront. COL Tan Chuan-Jin boarded the FCU after exchanging farewells with COL Geerhan and TNI soldiers.



On his feelings at that moment, COL Tan said: “I knew it was time for us to take a step back and move on. But I didn’t feel a sense of accomplishment yet. There seemed so much more we could do.

“And we still needed to make sure everybody made their way back home safe and sound. Only then could we consider the job done. We were just grateful that up to that stage, there had been no accidents in the entire mission, and the worst injury we had during OFE was a dislocated shoulder from a soldier who tripped in an LST.

“I was very grateful for the Indonesians sending us off; there was a lot of warmth in the relationship. I think people felt sad to leave, but we all recognised that it was time for us to move on.”

That evening, *Endurance* and *Endeavour* sailed past Meulaboh’s mass grave in line astern formation. With the ships’ crews and SAF personnel lined up on deck, LTC Li Lit Siew, Commanding Officer of *RSS Endurance*, and MAJ Yap Chee Eng, Commanding Officer of *RSS Endeavour*, each tossed a floral wreath into the sea, in memory of the town’s dead.

Changi Naval Base was 50 hours away by sea.



Wreaths laid by COL Geerhan Lantara and COL Tan Chuan-Jin after the memorial ceremony at the mass grave.



The Thai people deeply appreciate the warm gesture and kind assistance rendered to the victims of the natural disaster in southern Thailand by Your Excellency and the people of Singapore.

H M King Bhumibol Adulyadej of Thailand, 17 January 2005

Mission
accomplished

Chinook crews from 127 Squadron were still flying in Aceh weeks after the HASG had returned to Singapore.

LTC Keith Rodrigues, an Air Force liaison officer, said that the SAF made “a concerted effort” to bring some of them home for the Lunar New Year – the squadron had compiled a long list of volunteers who had offered to take their place in Medan.

Then, in the second week of February 2005, the Chinook detachment was asked if anyone wanted to go home.

“Not one hand was raised. They all wanted to stay and carry on with the relief mission,” said LTC Rodrigues. “Our guys were very driven.”

“Our aircrew very willingly stayed on even though it meant missing the Chinese New Year celebrations back home,” said MG Lim Kim Choon, Chief of Air Force. “I was most heartened by their attitude.”

Lessons learnt

Lessons learnt from OFE’s highs and lows, hits and misses, will be dissected, scrutinised, debated and shared within the SAF for a long time to come.

In fact, the process of writing after-action reviews (AARs) began on *RSS Endurance* soon after the ship set sail from Meulaboh. Mission commander COL Tan Chuan-Jin wanted his commanders to put pen to paper while their memories of the operation were still fresh.

The completed AARs would be used to draw up an improved response plan for humanitarian assistance and disaster relief missions.

Asked if he was glad that the SAF could respond so quickly, LG Ng Yat Chung, Chief of Defence Force, said: “I would be very disappointed if the SAF couldn’t do it.

“Working in a compressed time-scale while paying attention to lots of details – that’s second nature to us.

“The whole purpose of all our training and all our exercises is just so that we have rehearsed, and when the time comes we can respond quickly and effectively.



“We learned plenty of lessons from OFE. It reaffirmed the importance of high readiness. It underscored the need for the Army, Navy and Air Force to work in a much more integrated way, more ‘joint’.

“These lessons did not surprise us but confirmed what we already knew. They also reaffirmed our emphasis that our people must know how to work with local authorities. One of the key reasons for our successful mission was our ability to work very closely with the Indonesians.

“We don’t have a lot of assets. By any measure, what the SAF contributed was only a small part of the whole. But I think we made an impact. We made our contributions count because we provided niche capabilities.”

LG Ng also pointed out that the units deployed were not special units, but “just happened to be units on standby”.

“We went in with what we had and it showed Singaporeans that we were capable of doing good things.

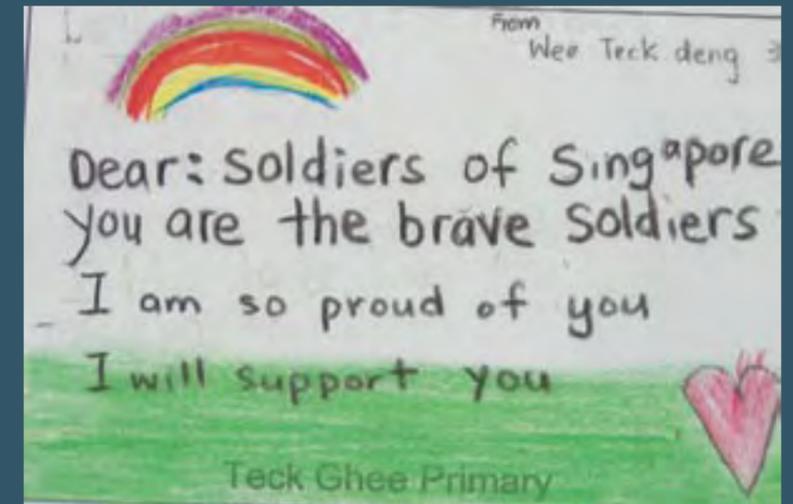
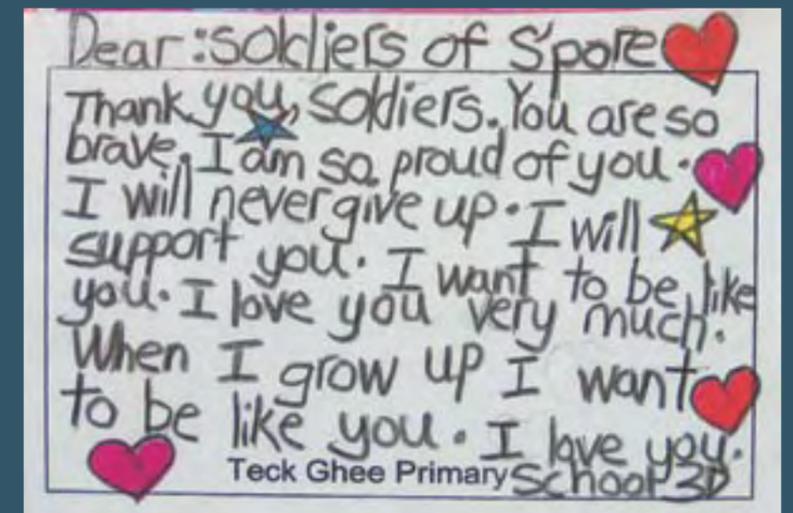
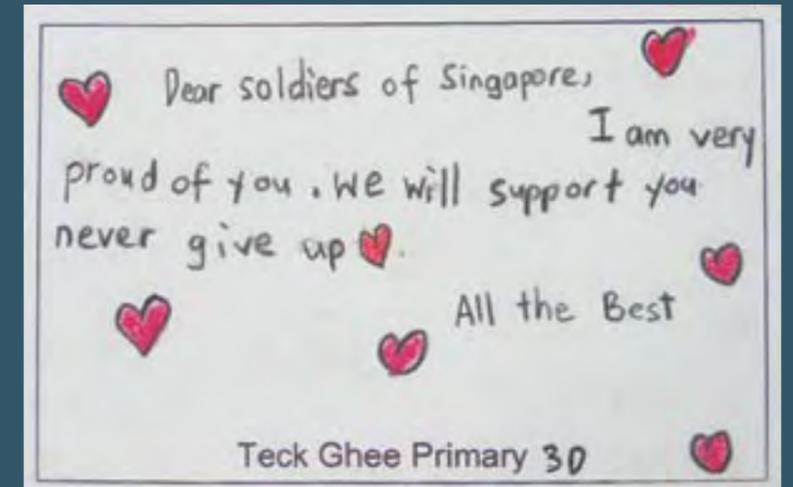
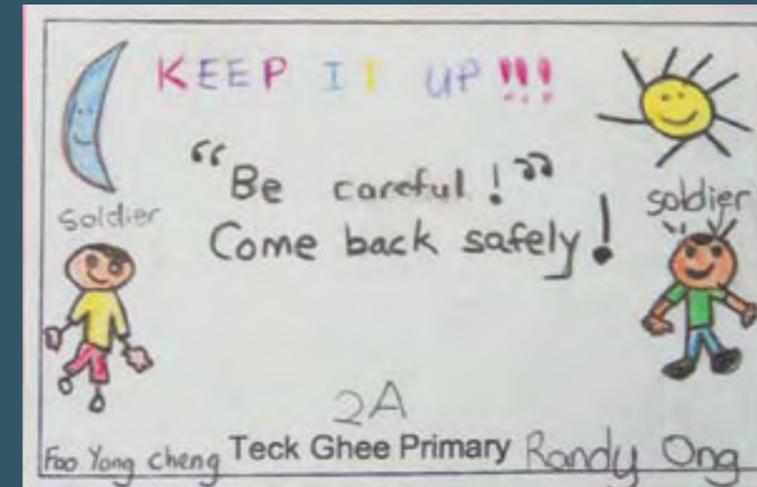
“National Servicemen typically complain about many things in training. Ask them to go for a 25-day field exercise and you will hear them complain. But you put them in operations for several weeks and they are fine.

“At the end of the day, they are capable of great things, But there’s a price to pay – preparing, being ready, is not exciting or glamorous. There is a Chinese saying: *yang bing qian ri, yong bing yi shi*. Train and prepare a soldier for a thousand days to use him for that single moment. What we achieved in OFE showed that the training system in the SAF works; we’re capable of doing quite remarkable things. But it takes a lot of hard work behind the scenes.

“I’m proud of what our soldiers, sailors and airmen were able to contribute to this humanitarian mission. The SAF did our part to bring some relief to the victims of this massive disaster.”

A quiet confidence

When Parliament convened to consider the budget for MINDEF, several Members of Parliament (MPs) commended the SAF for its tsunami relief operation. Some MPs had gone to Aceh and witnessed the SAF in action, and they proudly told Parliament what they had seen, and spoke of the impact that the SAF’s relief work had made on the local communities.





In response, Minister for Defence Teo Chee Hean pointed out that OFE had been a good test of the SAF's response system. The results affirmed that the resources and effort put in over many years to enhance the SAF's operational readiness and integration as a joint, tri-Service force had been effective.

The SAF could respond so quickly and effectively "because we had suitable capabilities and we were operationally ready..."

"But more important than the right equipment was the right people. Men and women with the professional competence, adaptability and dedication. The rigorous training they had undertaken over the years kicked in to produce a very fine execution of the mission. In a dynamic situation where information was often inadequate, our people were able to adapt quickly and frequently, so that they produced the results to make the mission a resounding success. And among those people were National Servicemen – NSFs and NSmen – who brought credit to the SAF with their professionalism and hard work."

The Minister also noted that the effective execution of the OFE mission underscored how far the SAF had come in its development as a joint force. While personnel and assets were physically far apart – in Medan, Banda Aceh and Meulaboh – they had operated effectively as an integrated tri-Service force. The mission had also demonstrated the effectiveness of the SAF's system-wide response. It was the effort not just of the SAF personnel deployed in theatre, but also the technology and support groups in MINDEF, industry partners and civil resource partners. All these components were tied together by a rigorous planning process and a tight decision-making loop. OFE had also affirmed that the training of SAF officers equipped them to work with international agencies and NGOs.

The experience had been an enriching and satisfying one for those SAF servicemen and servicewomen who participated in OFE. They were able to help fellow human beings stricken by a massive tragedy. And in the process, they gained a great deal of confidence in their commanders, and in their own capabilities, and the capabilities of their equipment. It was a sense of confidence that flowed into the rest of the SAF.

With the conclusion of Operation Flying Eagle, the SAF has returned to its normal peacetime training routine.

The process of training and preparing the SAF goes on.



Abbreviations

1WO	First Warrant Officer	MATC	Mobile Air Traffic Control
AAR	After-action review	MFA	Ministry of Foreign Affairs
AMC	Air Movement Centre	MG	Major-General
BG	Brigadier-General	MINDEF	Ministry of Defence
CMR	Civil-military relations	MP	Member of Parliament
COL	Colonel	MSG	Master Sergeant
CPT	Captain	NGO	Non-government organisation
DVI	Disaster victim identification	RSAF	Republic of Singapore Air Force
FCEP	Fast Craft Equipment Personnel	RSN	Republic of Singapore Navy
FCU	Fast Craft Utility	RSU	Rumah Sakit Umum (General Hospital)
GEN	General	SAF	Singapore Armed Forces
HADR	Humanitarian assistance and/or disaster relief	SCDF	Singapore Civil Defence Force
HASG	Humanitarian Assistance Support Group	SESKO-AD	Indonesian Army Staff College
JOD	Joint Operations Department	SESKO-AU	Indonesian Air Force Staff College
JOPG	Joint Operations Planning Group	SPF	Singapore Police Force
LCP	Lance Corporal	SSG	Staff Sergeant
LG	Lieutenant-General	TNI	Tentara Nasional Indonesia (Indonesian National Defence Force)
LST	Landing Ship Tank	UN	United Nations
LTC	Lieutenant-Colonel		
MAJ	Major		





David Boey, the Defence Correspondent at *The Straits Times*, sailed with *RSS Endurance* on 31 December 2004 and returned with the LST on 24 January 2005, after spending many days ashore in Meulaboh with the SAF Humanitarian Assistance Support Group. Operation Flying Eagle is the fourth SAF overseas mission he has covered as a journalist.

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