



# Nicoll Highway Incident 2004

**RESCUE**  
**995**

THE SINGAPORE CIVIL DEFENCE FORCE MAGAZINE

Singapore  
Quality Award  
Special  
Commendation





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# Editor's Note:



Picture: 5th Generation Red Rhino

Even before I started working with the Ministry of Home Affairs, I have already heard a lot about the SCDF elite Disaster Assistance and Rescue Team (DART). Formed in 1990, DART handles complex rescue incidents, such as urban search and rescue, height and confined space and water rescue operations.

I was only in my second year of Junior College when I read in the newspapers about the SCDF Operation Lionheart Contingent that had been deployed to render assistance at Aceh, Indonesia and Khao Lak, Thailand after the Asian Tsunami Disaster. When I was in my second year of University, I learned that the SCDF Operation Lionheart Contingent had received the Heavy Urban Search and Rescue team status under the International Search and Rescue Advisory Group.

Little did I know that I would be working with the SCDF a few years later. Well, I must say that I am very privileged to be able to work alongside the DART personnel and it is definitely one of the biggest highlights of my stay with the SCDF. Beyond all the glorious achievements and overseas deployments, the DART is actually a small community that consists of a group of very passionate lifesavers. Despite the complex nature of their work, they have always maintained a very upbeat and positive attitude.

SWO Agayle, SWO Sabree Dusuki and WO Jaais Bin Sol, the pioneers of DART, are the few living examples whom I can quote. Having met them in person, I must say that they are very humble in nature and most importantly, they take a lot of pride in being able to help people who are in need. They would do anything that they can to provide relief to those who are in need, even if it means putting their own lives in danger. They embrace uncertainties and constantly remind themselves to excel in the most difficult situations.

With pioneers of such stellar attributes, it is no doubt that the DART is always conquering new heights.

While this issue is on DART, we have also decided to publish some updates on our SG50 Gala Dinner for our Pioneers and most importantly, our attainment of the highest and most prestigious Business Excellence Award in Singapore - the Singapore Quality Award with Special Commendation. We just could not bear to forego these joyous stories that should also be celebrated!

As the next issue of Rescue 995 will only be printed after the official launch of the 5th Generation Red Rhino, I have decided to include a picture of this suave looking vehicle for this editor's note. Well, I just do not want to be the last person to write about this amazing innovation!

Apart from its dashing outlook, the 5th generation four-wheeled drive vehicle continues to be the first compact urban firefighting vehicle in the world that has a fully integrated compressed air foam pump system that can extinguish fire four times faster than water while using 70% less water. It is also configured to house a crew of five SCDF officers including an Emergency Medical Technician who is equipped and dual trained to respond to both fire and medical emergencies. I am sure this little teaser of the vehicle is enough to please any car enthusiasts. So, look out for our next issue to learn more about it!

Before I end this note, I would also like to wish every DART personnel a Happy 25th Anniversary. On behalf of the editorial team, we salute you for being courageous!

**Michelle Lim**  
Editor, Rescue 995  
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*“SCDF have attained the highest and most prestigious Business Excellence Award in Singapore – the Singapore Quality Award with Special Commendation (SQASC).*

*This SQASC Award would not have been possible without the collective belief, passion and sheer determination of everyone at all levels in the organisation, from the career uniformed and civilian staff, full-time National Servicemen, ORNS-men to our volunteers and partners. This SQASC Award is dedicated to all of you, proud members and advocates of The Life Saving Force!”*

*- Eric Yap*

*Commissioner SCDF*



# SCDF SG50 GALA DINNER

Home Team  
celebrates  
**SG  
50**



- 1 A joyous greeting between (left) COL Alan Toh and (right) SCDF Pioneer Mr Ho War Lam.
- 2 SCDF Pioneer Md Rosly Hussain posing with a Rescue 995 article that features his firefighting experiences. All SCDF Pioneers who attended the SG50 Gala Dinner were each given an issue of the Rescue 995 Special Edition.
- 3 SCDF Pioneer Mr Tan Eng Wah sharing some vintage pictures of SCDF with COL Lee Bee Hong.
- 4 Vintage Contingent members of the 2015 National Day Parade came together to put up a performance for the attendees of the SG50 Gala Dinner.
- 5 Several Full-Time National Servicemen present at the SCDF SG50 Gala Dinner wore uniforms of the Singapore Joint Civil Defence Force (1st from left), Civil Defence Force (2nd from left) and Singapore Fire Service (3rd from left).
- 6 From left to right: LTC Yeo Geok Kuan, COL Lee Bee Hong, AC Chin Lai Foong, SCDF Pioneer Ms Tan Huar Hia, LTC Betty Ting and LTC Joyce Lim.
- 7 Former SCDF Commissioners with Comr Eric Yap, (left to right) Mr Amerasinghe Selwyn Terrance, Mr Eugene Wong, Comr Eric Yap, Mr James Tan and Mr Andrew Chng Teow Hua.
- 8 From left to right: A family of firefighters present at the SG50 Gala Dinner - Tajul Isfahan Bin Md Azlan (Grandson), SCDF Pioneer Slamet Bin Matnawi (Grandfather) and Md Azlan Bin Slamet (Father).
- 9 From left to right: Mr Amzah Bin B Ibhrim receiving the SG50 Medallion from Comr Eric Yap.





# 'AGAYLE'

My late mother told me: "I never want to lose you to a fire, son". When I first shared with her that I was offered the position of a Fireman by the Singapore Fire Service (SFS), she had half a mind to convince me to reject it. To her, a teenager like me should be applying for a deskbound office job instead. She was worried that I had my head in the clouds at only 17 years old but I pushed forth with my desire to become a fireman anyway.

It was not until when I started work at Central Fire Station did I successfully convince my mother to not worry unnecessarily. I shared with her stories of incidents that I had responded to and how I have impacted the lives of many. I shared with her that this job had brought me a deep sense of personal satisfaction simply because it allowed me to help those who are in need. After some time, I realised that she had also been sharing my stories with her friends too.

One year after I joined the SFS, I was selected to join the Rescue Squad - an elite team of the SFS.

The three month Rescue Squad course that I was enrolled in coincided with the month of Ramadan but it did not hinder me from completing all the physical workout sessions. I also remember that it was our regular weekend routine to run from Serangoon Fire Station to Changi Point. Our physical fitness was tip-top!

After passing out from the Rescue Squad course, I joined the Mass Rapid Transit (MRT) Task Force. This special task force was established after the official opening of the MRT system in Singapore and with the launch of the six kilometer section of the North South Line from Yio Chu Kang to Toa Payoh. Like the Rescue Squad, only the best were selected to join the MRT Task Force.

During the MRT Task Force training, I took on the role of both trainee and trainer, due to my work experience with the Rescue Squad. Other than learning how to operate within confined spaces, we also acquired skills and knowledge on how to conduct rescue operations in underground environments with high air pressure without feeling nauseous.

After the merger of SFS and Civil Defence Force in 1989, the Singapore Joint Civil Defence Force was established. About a year later, the Disaster Assistance and Rescue Team (DART) was born. The first batch of DART consisted of an amalgamation of rescuers who were previously qualified for the Rescue Squad and MRT Task Force.

Even though this is a thing of the past, I am proud to say that I was one of them.



Picture: Upon joining the Singapore Fire Service, then recruit Md Salleh took over as Fireman No. 47 from his senior named Agayle. Since then, everyone nicknamed him 'Agayle' as he bore an uncanny resemblance to Agayle. This picture was taken when SWO Salleh assumed the role of a Leading Fireman No. 5 (a rank structure of the past).







Picture: 'Agayle' joined the Singapore Fire Service at the age of 17 years old. Throughout his career, he had been part of the SCDF elite teams including the Rescue Squad during the mid-1970s, MRT Strike Force in the late 1980s and DART in the early 1990s. Today, he assumes the role of a Regimental Sergeant Major (RSM) at the Civil Defence Academy.

As a DART rescuer, I was deployed to assist in many complex operations such as SCDF's first Operation Lionheart mission to Baguio, Philippines. The challenges of being a rescuer with the DART became more prominent as time went by.

On 2 March 1986, the Lian Yak Building (commonly known as the Hotel New World) collapsed. It was near knock off time when my team and I were activated to respond to a fire at Mustafa Centre. En-route to the incident site, we were informed by the Operations Centre that the building opposite Mustafa Centre had collapsed.

Immediately, we figured out that it was the Lian Yak Building. Upon our arrival, we began searching for casualties.

We did our best to rescue those whom we could and one of them was Miss Tan Oi Ling.

Members of the public brought us home-cooked food while some of them stood by the side to cheer us on. The support was tremendous and the Singaporean spirit bonded everyone together. It felt exactly like the *kampung spirit* of Singapore.

One month after the incident, I was presented with a Public Service Star (Bintang Bakti Masyarakat). That was also the first time in my life that I received an award. Of course, my mother was extremely proud of me too. 🚒



Miss-to-be Jerina, who was given a new lease of life, with her husband Simon Si.



IT WAS only two years ago that her life hung on a slender thread in the Hotel New World horror.

But today, Jerina Tan Oi Ling is ready to give life — she is expecting her first child.

"My doctor said it's either after Christmas or in January, but how did you know I was expecting?" asked the present Mrs Simon Si.

Jerina, who was married in February and is now living in Bishan, was one of the 17 survivors of the Hotel New World disaster in March 1986.

"Not only do I still have nightmares about the whole thing, I've developed the fear of being alone and of being in the dark," she said.

### Fear of tall buildings

The 21-year-old accounts clerk had been working in the hotel for a little over two months when the building collapsed around her.

Her legs were trapped, and Jerina pleaded with rescuers to amputate them and pull her out quickly.

But it was not necessary. She was rescued on the first day and spared the surgery. But she still has a fear of tall buildings.

"That's why I said yes when the management of Raffles Hotel called to say they had a vacancy in the accounts department and asked if I was interested. There are no lifts and the office is on the ground floor," said Jerina, who stayed at home for a year after the fateful incident.

Her husband, Mr Si, 27, added: "She wouldn't go to the restaurant at the top of Westin even if you paid her a large sum of money."

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*SWO Sabree Dusuki  
and  
WO Jaais Bin Sol*





1ST DEDICATED DART UNIT TRAINING  
28TH JUNE TO 13TH JULY 1993



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2906729  
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FRONT ROW (L to R): WO ZAINAL ATAN, LTA WINSTON CHANG, CPT ANG TSE MENG (Dy Dart Comd), CPT JEFFREY TAN (Dy Comd D Div), MAJ ALAN TAN (Hd Trg), MAJ CHOO BENG KHIAN (Dy Hd Ops), LTC OOH YAM KHOON (Comd F Div), AC BOO GEOK KWANG (Dir FSB), DC TAN JIN THONG (Dy Comr), COMR JAMES TAN (Comr SCDF), AC LOH KAH LOON (Hd Insp), MAJ SOH FOOK WAN (CO CDS), MAJ YONG LENG TI (Hd Pers), MAJ TONY LIM (Hd Logs), MAJ LIM KAH SENG (Comd G Div), MAJ TAN CHIANG CHIANG (Comd J Div), CPT POON SIOW HAI (Dart Comd), LTA DENNIS NG, WO LOHD SALLEH ALI.  
CENTRE ROW (L to R): PTE NAMLAN, MAJ SHAFIE, CPL NG KOK ANN, CPL RUSLI TANJONG, PTE ITHIN SULONG, PTE RASHID SAHDAN, PTE SHAHRUDIN, SGT JERRY CHEA, PTE SUKRIMAN, PTE SEE KWONG NAM, PTE SABRI DUSUKI, PTE AZLAN SLAMAT, PTE ABD LATIF, PTE RAHMAT BUANG, PTE MUSTAFA HASSAN, PTE MUSTAFA AHMAD, PTE AZMI HASAN, CPL AB HAZAK SENIN.  
BACK ROW (L to R): PTE IHAHIM, PTE ZAHIDI, PTE MO NOOH, CPL ZULKEPLE, PTE JAAIS, PTE IRIANTO, PTE SELAMAT, CPL JUNAIDI ROWDEN, PTE JAMALLUDIN, PTE JOMARI TATI, CPL ABD RASHID, PTE CHUA LAI SIAN, PTE ABD RAHIM, CPL NASIR AHMAD, PTE RUDIN OMAR, PTE AZMAN TALIB, CPL ABD RAHIM.

Picture: Graduation picture of the 1st DART Training.

"I wanted to take after the footsteps of my grandfather, who served as a fireman during the Japanese Occupation and my father, who also served as a fireman when Singapore was still colonized by the British.", WO Jaais Bin Sol said.

In fact, he raised the standards of his family lineage by being the first to qualify for the elite team of the Singapore Fire Service (SFS) – the Rescue Squad and eventually, DART.

Like WO Jaais, SWO Sabree Dusuki was also from the pioneer batch of the Rescue Squad and DART. He joined the SFS because he wanted to be able to impact the lives of others through positive ways. "Being able to save lives is a privilege. I cannot find anything else in this world that I can do to fulfil this humble dream of mine", says SWO Sabree.

Throughout their careers, SWO Sabree and WO Jaais have been deployed for numerous search and rescue incidents in Singapore and beyond our shores. The first SCDF Operation Lionheart mission to Baguio City, Philippines in 1990, which SWO Sabree and WO Jaais were deployed to, is a

good example. With decades of experience under their belt, they described the nature of their work as "unexpected and physically and mentally strenuous". Most, if not all of the time, DART rescuers are required to think on their feet and respond to the needs of the situation, which in itself can be very dynamic in nature. As summed by many senior DART rescuers, intuitiveness, innovativeness, and improvisation become the operative word in most disaster relief operations as you basically have to make do with what you have to get the job done.

After their first-time deployment to Baguio City, WO Jaais was also deployed to numerous other overseas missions including the Operation Lionheart missions in Kuala Lumpur, Malaysia after the collapse of the Highland Towers Condominium in 1993 and more recently, Nepal, after the occurrence of the Earthquake in April 2015. Likewise, SWO Sabree was deployed for Operation Lionheart missions in Sichuan, China in 2008, Sumatra, Indonesia in 2009 and Christchurch, New Zealand in 2011. 🚒

# A Rescue Squad for the towering infernos

## Rehearsals

But fires breaking out from the upper floors of high-rise buildings will have to be fought from within, using built-in fire-fighting facilities, since the tallest mechanical ladders can only reach a height of 30 metres. Exterior-based operations cannot be adopted, he said.

Mr Chan also said that three-quarters of fire practices depend on "constant co-ordination and rehearsals of what to do in an emergency."

To a question whether such equipment are adequate for fighting fires in high-rise buildings under construction, Mr Chan replied that they are the same as for those in completed buildings.

The recent fire in the uncompleted Dynasty Hotel, according to Mr Chan, was dealt with "quite efficiently."

THE Singapore Fire Service has a Search and-Rescue Squad comprising 108 men trained by the Commando Battalion and the Helicopter Squadron of the SAF.

These men are trained to rescue trapped victims of fires in high-rise buildings, said the Senior Parliamentary Secretary (Social Affairs), Mr Chan Chee Seng, in his replies to questions by MR YEO CHOO KOK (Delta).

There is also a contingency plan, he said, where RSAF helicopters can be used to carry out aerial evacuation of trapped victims and for lowering fire equipment onto the roof of high-rise buildings.

Mr Chan stressed that the service has the necessary equipment to fight fires in high-rise buildings.

This equipment is basically the same as that used to fight other fires, he said.

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# Baguio City Earthquake, Philippines – 1990 –

**TOP**

*The SCDF Operation Lionheart contingent members (dressed in light blue colour) and medical personnel from the Singapore Armed Forces were deployed to render assistance in the aftermath of the Earthquake that struck Baguio City, Philippines in 1990.*

**BOTTOM**

*SCDF Operation Lionheart contingent members preparing the necessary equipment required for their first urban search and rescue mission.*

The 16 July 1990 earthquake that shook Baguio City, Philippines measured 7.7 on the Richter scale. Within 45 seconds, the powerful tremor caused the five-star Hyatt Terraces Plaza to sustain considerable damage. The hotel lobby was crushed, leaving 50 people dead. The landslides that occurred at the mountainous region also destroyed the vital road links and in turn, hampering any rescue efforts.

Thousands of city residents huddled in tattered tents and makeshift shelters in any available open areas as they were fearful of returning to what was left of their homes. The three local hospitals also suffered significant damage and were without power for many days.

Upon the request by the Philippine government for international help, the SCDF Operation Lionheart Contingent and medical personnel from the Singapore Armed Forces were deployed to Baguio City to render assistance.

Braving the pounding rain and frequent aftershocks which threatened to topple what was left of the collapsed buildings, our SCDF rescuers were never once deterred and continued courageously with search and rescue efforts. 🚒



“After returning from the Operation Lionheart mission at Baguio City in 1990, we reviewed the structure of the Rescue Squad with the purpose of improving our expertise in the area of Urban Search and Rescue operations. Guided by the lessons acquired from both local and overseas lifesaving missions, the elite DART was born.”

**SAC Christopher Tan**

SAC Christopher Tan (then CPT Tan) was one of the Rescue Commanders deployed to the Operation Lionheart mission at Baguio City, Philippines in 1990. He was also a Commander of the Rescue Squad.





# Highland Towers Collapse in Kuala Lumpur, Malaysia – 1993 –

The 12-storey Highland Towers collapsed on 11 December 1993 after a mudslide that was brought on by heavy rains. Due to the close geographical proximity of Singapore and Malaysia, the SCDF Operation Lionheart contingent was the first foreign rescue team to arrive at the incident site located at Taman Hillview, Ulu Klang, Selangor, Malaysia.

The complex rescue operation was hampered by the unstable grounds and made worse by constant rainfalls. At one point, all rescue operations were halted after the occurrence of a landslide at the hill behind the collapsed building.

After this Operation Lionheart mission, Malaysia established its own specialised rescue unit, the Special Malaysian Assistance and Rescue Team which underwent advanced training courses in Singapore with the then newly established DART.

“ DART was a newly established unit when it was deployed to assist in the rescue operations at the Highland Towers that had collapsed. Yet, nothing stopped us from upholding our operational readiness. Together with our Malaysian counterparts, we worked tirelessly for a period of 10 days.”

**LTC (Ret) Poon Siow Hai**

LTC (Ret) Poon Siow Hai was the first Commander to the newly established DART in year 1990.



**TOP**

The 12-storey building that collapsed sideways left 48 people dead.

**CENTRE LEFT**

After the collapse of the Highland Towers, residents who lived at the other blocks situated behind were evacuated as a precautionary measure.

**CENTRE RIGHT**

A DART rescuer standing on a excavator to look for victims who may have been trapped within the collapsed building.

**BOTTOM**

Working hand-in-hand with the local rescue team, our DART rescuers used life detectors to sense for possible signs of life from within the rubble.







# Asian Tsunami Disaster, Aceh, Indonesia and Khao Lak, Thailand – 2004 –

The 26 December 2004 Asian Tsunami Disaster struck 12 Asian coastlines. The undersea earthquake that occurred in the Indian Ocean and measured 9.0 on the Richter scale resulted in giant waves that enveloped some parts of South Asian and Southeast Asian countries, including India, Indonesia and Thailand.

Hundreds of thousands of people were killed. As for the survivors, their homelands were destroyed.

For the first time, the SCDF deployed two contingents for the overseas mission concurrently. Each team of 23 members were deployed to Aceh, Indonesia and Khao Lak, Thailand, to assist in the search and rescue efforts in tsunami-hit areas. Additional reinforcements were sent in the days that followed.

The two-week operation was also SCDF's largest overseas mission. Over 130 SCDF personnel, including four SCDF Operationally Ready National Servicemen were deployed, including the Singapore Armed Forces (SAF). In addition, two SCDF paramedics were also attached to the SAF Medical Unit at Aceh to render medical assistance to the locals while three other officers were attached with the United Nations Disaster Assessment and Coordination team at Aceh and Jakarta to assist in the damage assessment and coordination of international rescue efforts.

By the end of the operation, the SCDF contingent members recovered a total of 93 bodies in Aceh, Indonesia and 14 bodies in Khao Lak, Thailand. 🚒



**TOP LEFT**

*A building structure in Khao Lak, Thailand that had been destroyed by the tsunami. The strong winds and giant waves destroyed most parts of the infrastructure and overturned and displaced vehicles.*

**BOTTOM LEFT**

*SCDF DART rescuers retrieving a body from the rubble.*

**TOP RIGHT**

*SCDF DART rescuers searching through the rubble for bodies which may have been buried.*

**BOTTOM RIGHT**

*SCDF DART rescuers with other SCDF Operational Lionheart contingent members bringing a body that they had retrieved from the rubble to a designated burial site.*





# South Asian Earthquake, Muzaffarabad, Pakistan – 2005 –



A massive earthquake shook northern Pakistan and parts of India and Afghanistan on 8 October 2005. The earthquake measuring 7.6 on the Richter scale was centered in the forest-clad mountains of Pakistan administered Kashmir, near the Indian border and about 100km north of Islamabad. The death toll resulting from this earthquake soared above 42,000 and with over 60,000 people injured. In Muzaffarabad, hundreds of children were buried under collapsed school buildings.

Nearly 3 million people were left homeless and were living in tents or in the open amid freezing temperatures.

The SCDF Operation Lionheart Contingent rendered medical aid at a hospital in Muzaffarabad and assisted with the evacuation of quake victims in surrounding towns. In total, the contingent members treated about 500 casualties. The rescuers also extricated the body of a dead man that was trapped by rubble and steel pipes at the 4-storey Neelum View Hotel that had collapsed as well as rescued an 80 year old woman who was stranded on a steep mountain.

Before the team departed for Singapore, then-MAJ Yap Kok Boon, Commander of the SCDF Operation Lionheart Contingent, presented a relief package comprising blankets, groundsheets, tents, sleeping bags, sweaters, medical and food supplies, on behalf of Singapore to the local authorities. 🚚

“ I am very privileged to be able to work with the elite DART rescuers during our deployment to Muzaffarabad, Pakistan in 2005. Our DART rescuers are like tea bags. Tea bags become stronger and more flavourful when you dip them in piping hot water. Similarly, you see the very best emerge in our rescuers when you submerge them in the worst case scenarios.”

**LTC (ORNS) Mohan Tiru**

LTC (ORNS) Mohan Tiru is one of the first few SCDF Operationally Ready National Servicemen (ORNS) who was deployed for humanitarian missions. He is currently serving as the Deputy Chief Medical Officer of the SCDF Medical Department as his ORNS appointment.

**TOP LEFT**

*LTC (ORNS) Mohan Tiru providing medical assistance to the children who were injured during the earthquake at Muzaffarabad, Pakistan.*

**TOP RIGHT**

*The earthquake left many of the locals displaced and homeless.*

**BOTTOM RIGHT**

*SCDF contingent members assisting in the distribution of food and clean water to the locals.*

**BOTTOM RIGHT**

*LTC (ORNS) Mohan Tiru (2nd from left) and CPT Carolyn Low (then SSG Low) (middle) assisting other medical practitioners in a minor surgery conducted on a victim of the earthquake.*





# Sichuan Earthquake, China

## — 2008 —



**TOP**

*DART rescuers conducting search and rescue operations on collapsed building structures stacked at precarious angles.*

**BOTTOM LEFT**

*A SCDF search dog handler with his search dog sniffing out for possible signs of life within the debris.*

**CENTRE**

*DART rescuers and SCDF Operation Lionheart contingent members assisting locals to retrieve the body of a family member who had been trapped in the rubble for days.*

**BOTTOM RIGHT**

*DART rescuers and Operation Lionheart contingent members bringing the body to a designated burial site.*

A massive earthquake that measured 7.8 on the Richter scale hit Eastern Sichuan, China on 12 May 2008. On top of the 70,000 deaths, 18,000 people went missing, 375,000 people were injured and about 5 million people were left homeless. Led by COL Francis Ng How Juah (then LTC Ng), a 55 member SCDF Operation Lionheart contingent was deployed to render humanitarian assistance in Sichuan, China.

Based in Hongbai Township in Shifang City, the contingent conducted search and rescue operations at over a dozen sites in its 5-day mission. Five bodies were uncovered and extricated from the collapsed structures and rubble. The rescuers also rendered other forms of assistance to the locals affected by the aftermath of the quake and its many aftershocks. This included the construction of a makeshift link bridge at an area hit by a massive landslide.

Equipped with a host of search and rescue equipment such as fibre-optic scopes, life detector systems and hydraulic cutters and spreaders, the contingent also brought along four search dogs for the mission. 🐕



“As the Commander to the Operation Lionheart Contingent deployed to assist in the aftermath of the Sichuan Earthquake, I witnessed for myself the sheer determination of the elite DART rescuers and their high level of commitment. Every failed attempt became a reason for them to push forth. I was extremely humbled.”

**COL Francis Ng How Juah**





# Nepal, Earthquake – 2015 –

An earthquake measuring 7.8 on the Richter scale struck Nepal on 25 April 2015. Led by LTC Alvin Tan, a 60-member Operation Lionheart contingent was deployed to Nepal to render assistance one day later. The SCDF contingent was part of a larger Home Team Contingent comprising of another 66 officers from the Singapore Police Force. This was also the largest Home Team deployment for an overseas disaster relief operation.

Together as one, the Home Team Contingent conducted search and rescue operations, assisted in the heli-evacuation of casualties, rendered medical assistance, and provided humanitarian aid. The contingent also transferred its remaining stock of medical supplies, including dressings, bandages and medicines, to the Singapore Red Cross team in Nepal before their departure. 🚚



**TOP LEFT**

*DART rescuers and SCDF Operation Lionheart contingent members operating alongside other foreign rescue teams, to stabilise a building that was tilted as a result of the earthquake.*

**TOP RIGHT**

*CPT Foo Yiyng Kai (in blue jockey cap) conducting a briefing on the rescue missions at the United Nations On-site Operations Coordination Centre.*

**CENTRE LEFT**

*Before some members of the Home Team Contingent set off for Pokhara, Nepal.*

**BOTTOM RIGHT**

*SSG Dan Qiong, the only female in the Home Team contingent, was deployed to Nepal as a Search Dog handler.*

“ It goes beyond just the ability to provide relief at any humanitarian mission. The greatest satisfaction comes when you witness for yourself how you have impacted the lives of the victims. We may or may not see them again in our lifetime but our encounters with them create an indelible memory in our hearts and minds. This is the beauty of our DART rescuers. We go beyond our search and rescue responsibilities. Instead, we impact the lives of the needy.”

**LTC Alvin Tan**

Currently Commander of the 3rd SCDF Division, LTC Alvin Tan is also a member of DART. LTC Tan has been deployed for six Operation Lionheart missions.







### DART Rescue Vehicle (DRV)

The DRV is an all-terrain rescue vehicle specially designed for multi-site deployments that are suitable for overseas search and rescue operations. Equipped with an electrical winch and rescue hardware, the four-wheel DRV can manoeuvre on undulating grounds. Commissioned in early 2008, the DRV was first deployed at the Sichuan Earthquake in the same year.



### DART Heavy Rescue Tender (HRT)

Apart from the day to day operational response by DART, the DART HRT is deployed for more complex operations including Heavy Urban Search and Rescue operations and rescue work at industrial accidents. The DART HRT packs a slew of complex rescue equipment including the inflatable rescue boat that is utilised for underwater rescue operations. The new design of the DART HRT made its first special appearance during the 2014 National Day Parade.



### Rescue Dog Tender (RDT)

The RDT is used by SCDF Dog Handlers to deploy Search Dogs and Fire Investigation Dogs.



### DART 5-Tonner

The DART 5-Tonner is deployed as a troop and equipment carrier.

*Picture: DART Rescuers deploying the heli-bucket, with the assistance of personnel from the Singapore Armed Forces, in Chiang Mai, Thailand.*



### Heli-Bucket

The heli-bucket is a water dispenser slung underneath a helicopter to collect water from any open source, such as a reservoir or sea. The water in the bucket will then be discharged at the base of the bucket, when the release button is activated. The heli-bucket was acquired by the SCDF to enhance our ground firefighting capability for large bush fires and fires that are in remote forested areas. It has since been deployed by DART to assist the Thailand authorities in fighting a forest fire in Chiang Mai on March 2015 and Indonesian authorities in aerial haze firefighting operations on October 2015.





## 20 April 2004

A part of the collapsed section of the Nicoll Highway had caved into the MRT Circle Line tunnel that was under construction. Close to the Golden Mile Complex, a broken underground pipe was also releasing a column of yellow vapour into the atmosphere.

As firefighters and paramedics raced to locate and rescue surface casualties, the related agencies from the Public Sector and reinforcement from specialist SCDF units including DART were activated. Additional forces and nearly 20 rescue appliances including the Heavy Rescue Tender and the Command Vehicles were also deployed to manage the operation.

Teams of rescuers with search dogs sent to comb the incident site were thoroughly briefed about the instability of the mangled mass of debris. By evening, the first body of the four missing workers was located and extricated. He was submerged in water and mud, between an office container and a 5-tonne tipper truck 20 meters below ground level.

The DART rescuers continued to plow the ruins in small groups in search of possible signs of life.



Picture (top left): A section of the Nicoll Highway that caved in.



Picture (top centre): DART rescuers extricating one of the four missing workers from a partially submerged cavity.



Picture (top right): A team of DART rescuers searching for possible signs of life.

Picture (bottom centre): DART rescuers extricating a body from underneath the tipper truck. They improvised the use of their breathing apparatus sets as diving equipment.



Picture (top left): A view of a collapsed section of the Nicoll Highway.

The second victim's body was extricated by DART personnel at noon on 21 April 2004. Though the body was found some five hours before, extrication was difficult as it was wedged between the rear wheels of a truck submerged in murky water. It was a delicate operation as any abrupt movement could consequentially lead to a landslide of rubble. In addition, it was foremost on the minds of the rescuers to ensure that the body was recovered and intact.

On 22 April 2004, the third body was extricated. It was a few meters away from the location of the second body, and was pinned beneath the undercarriage of a 5-tonne tipper truck. Like the second body, it was submerged in murky waters where visibility was zero. Rescuers had to dig vertically downwards through a stack of rubble and debris in three cavities, two of them flooded with water and obstructed by mangled steel beams and struts. But the operation proved extremely daunting as besides zero visibility, the cavities had little room to manoeuvre.

Search was suspended at noon on 23 April 2004 as the Land Transport Authority (LTA) detected stability problems. Grouting was immediately carried out to stabilise the site. Operations for the rest of the morning had to be disrupted whenever there were signs of danger. At dawn, following the grouting work, water was pumped out from the cavities and this allowed the rescuers to descend into the pit to continue with the search operation.

By the end of the four day operation, three lives were saved and three bodies were uncovered. 🚒





**30  
September  
2013**

A Tower Crane collapsed along No. 1 Supreme Court Lane. There were four casualties upon the arrival of the SCDF emergency responders. Among the four casualties, two were pronounced dead on arrival. One of the deceased was trapped at a height of about 5-storey at a scaffolding near the collapsed tower crane and his body had to be hoisted down by DART rescuers.



**6 April 2014**

DART rescuers retrieved the body of a 35 year man that had gone missing off Changi Beach. The man was pronounced dead at scene.



**10 April  
2014**

A tree that was 3 metres in diameter and 15 metres in height collapsed onto a pre-war building that was situated within the compound of Alexandra Hospital. Two casualties who were trapped within the pre-war building were rescued by the DART.

**8 July  
2015**

DART rescued a 22 year old maintenance mechanic from a 10-storey high crane. The incident happened at a construction site at Jurong West Street 93.







# Tommy

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2015 marks the first decade of my career and it has been a very satisfying journey so far.

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My name is Tommy and I was born in the United Kingdom. Before I turned one year old, I migrated to Singapore and my life journey has been a very exciting and fulfilling one so far. While I have little knowledge about my family lineage, I must say that my talent in Search and Rescue work runs in my blood.

Since I moved to Singapore, I have been living at No. 2 Mowbray Road together with my other colleagues from SCDF and Singapore Police Force. Unlike the pet dogs that you may have at home, I am a working dog just like my family members and I am proud of it.

During my first few years with the K-9 unit, I met my first handler. I was wary of him at first as he was a stranger to me. He showered me with attention anyway. It took some time before I could familiarise myself with his scent and once I got over that fear barrier, we became good friends. Our kinship lasted for three years. I must say that he did all that he could to make me a happy dog.

I missed him a lot but I am glad that the rest of my handlers and dog colleagues gave me the strength to move on. Soon after, another handler came into my life. His name is SGT Glen Chew. As an introvert, I found it difficult to warm up to him quickly. I was not afraid of him. I was shy. It is embarrassing to scratch and groom yourself before a stranger. It took me a few days before I could comfortably reveal my true self to him.

Since then, SGT Chew and I have done many good things together especially in the world of humanitarian aid. Till date, I have rendered my expert sniffing services at four Operation Lionheart Missions. Of all the missions, the most memorable was the mission to Christchurch, New Zealand after the earthquake on March 2011. During one of the operations, I overheard a worried stranger asking SGT Chew if I could perform my tasks well as I seemed like an introvert.

SGT Chew said nothing. He put on the rescue vest on me and I was deployed to conduct a search operation immediately. To me, the rescue vest is like a cape for all Superheroes. It brings out the best in me and each time I put it on, I become a different dog. The twinkle in my eyes lights up.

Without hesitation and upon SGT Chew's command, I leaped into the rubble and started sniffing out for signs of life. I weaved in and out of the broken concrete and peered through several tangled structural rods hoping to find someone. Occasionally, my paws slipped through the crevices but I was not too worried about it. When I finally sniffed out a possible sign of life, I barked as loudly as I could!

As the SCDF personnel and DART rescuers took over the operation, I saw the same worrisome stranger again. This time round, he grinned widely at me.

As SGT Chew removed my cape, I receded behind him again.

2015 marks the first decade of my career and it has been a very satisfying journey so far.

I am now an old man and I have recently retired from SCDF. While I will definitely miss No. 2 Mowbray Road, I am also looking forward to growing old with Glen. 🚗







***SCDF***  
The Life Saving Force