

RESCUE

995

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2018**

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THE SINGAPORE CIVIL DEFENCE FORCE MAGAZINE

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Non-Emergency
Ambulance



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FIND
& WIN!**

Flip to Pg 3 now!

BIKES

Editor's Note

WO Akbar Ali Bin Mohd Salleh and WO Reduan Bin Asri were delighted to see the Suzuki Bandit motorcycle again at a photoshoot session. It has been about two decades since they last saw it.

As Fast Response Medics then, they rode that motorcycle to provide medical assistance to casualties in distress, prior to the arrival of the ambulance. Introduced in 1992, it is also the first time in our history that firefighters responded to incidents on motorcycles.

Just as Singaporeans were getting accustomed to the sight of Fast Response Medics on the roads, SCDF introduced Fire Bikes as part of its frontline response in 1997. Unlike the Fast Response Medics, Fire Bikers extinguished fires with hand-held impulse guns, conducted CPR and performed first-aid when the need arose.

Over the years, the use of motorcycles in SCDF's frontline operations has gradually evolved. Today, it is an indispensable capability that allows us to bring our emergency response to the public in an expeditious manner.

With the introduction of the new Emergency Medical Response Framework in 2017, we now see Emergency Medical Technician (EMT) – Fire Bikers on the roads. As the name suggests, the skillsets of our emergency responders on motorcycles have significantly advanced over the years. Even as you flip through the pages of this issue, the EMT-Fire Bike Committee continues to think of ways to improve their operational response as well as the equipment they carry onboard the Fire Bikes.

If you are a motorcycle enthusiast, this issue has been specially curated to excite your senses.

On behalf of the Rescue 995 editorial team, I hope that you will be inspired by our life saving stories. 🚒

Michelle Lim
Rescue 995, Editor
May 2018



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Don't forget to count me in!



READ, FIND & WIN!

Count the number of Fire Bikes hidden in the pages of this issue and stand a chance to win a figurine of a SCDF firefighter. Email your answer to michelle_lim@scdf.gov.sg by 30 July 2018. Three lucky winners with the right answers will walk away with this prize.

This contest will close on **30 July 2018**.

Congratulations!

Winners
of the Valentine's Day Edition Contest

- 👑 CPT Nah Kah Wei
- 👑 Mr Mak Kwok Leong
- 👑 Ms Gladdys Chan

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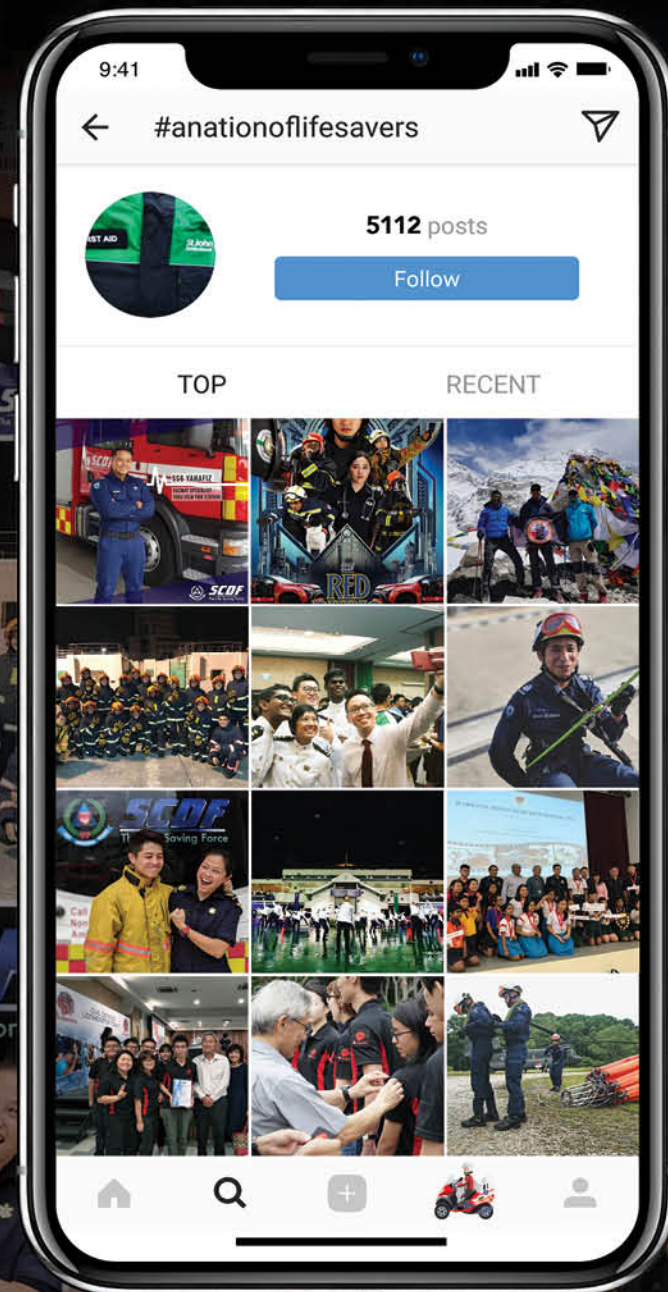


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TECH BITES

Instagram #ANATIONOFLIFESAVERS



facebook.com/SCDFpage

MAILROOM

VOICES FROM THE HEARTS



I had a horrendous experience at being trapped in a lift for almost 45 minutes. I would like to thank the SCDF team of emergency responders from Changi Fire Station namely SSG Md Amal Rusydi, SSG Luqman Hakeem LCP Shahrul Indra and LCP Freston Ong for their quick assistance.

♥ Estella Kueh

We wish to express our appreciation to SCDF for the valuable assistance that your emergency responders have provided us with at the fire that occurred at Pulau Busing on 20 March 2018. SCDF's swift response and actions helped put out the fire expeditiously and effectively, and prevented further damage to the terminal.

We witnessed for ourselves the bravery and hard work of SCDF personnel and their officers' capable leadership as they dealt with the fire as well as when they carried out their tasks during and after the fire incident. Their professionalism and dedication reflects a high standard of excellence achieved only through countless of training in preparation for such an emergency.

Please convey our heartfelt appreciation and gratitude to all your SCDF personnel who fought the fire so bravely and well.

♥ Reza Goudarzi
Director/Terminal Manager TANKSTORE

On behalf of Waste Management & Recycling Association of Singapore, I would like to express my heartfelt gratitude to SCDF for your hard work in putting out the fire that broke out in Kranji during the early hours of 22 March. If not for SCDF's prompt arrival and intervention, the fire could have engulfed a larger area of the entire factory. I would also like to extend my compliments to the officers from the SCDF Public Affairs Department for working with us in addressing queries from the media.

As a former SCDF National Serviceman who is currently volunteering with the Civil Defence Auxiliary Unit, I am proud to witness the SCDF emergency first responders carrying out their firefighting and rescue duties diligently and courageously. The men and women of SCDF are indeed an inspirational beacon of light amidst the 'darkness' that we experienced that day.

♥ Edwin Pang | Executive Director
Waste Management & Recycling
Association of Singapore (WMRAS)

INCIDENT WATCH



On 20 March 2018 at approximately 5:50pm, a fire broke out at Pulau Busing. After approximately six hours of intense firefighting operations, the raging oil storage tank fire was extinguished by the combined efforts of SCDF emergency responders and Company Emergency Response Team members. 128 firefighters and 31 emergency vehicles were deployed to the incident. The SCDF-led operations were supported by the Police Coast Guard, Maritime and Port Authority of Singapore, Republic of Singapore Navy and the National Environment Agency.

Set up auxiliary force, Jaya urges Civil Defence

Core of volunteers could undertake specialised tasks

ORGANISE Singapore's pool of 36,000 Civil Defence volunteers into an auxiliary force, Home Affairs and Law Minister Professor S. Jayakumar said yesterday.

This could be along the lines of the police Volunteer Special Constabulary (VSC) and would tap the vast potential of the volunteers.

If implemented, such a scheme could result in volunteer pools of fire-fighters and ambulance crew.

Speaking at this year's Singapore Civil Defence Workshop Seminar, Prof Jayakumar said that the civil defence movement, which was 10 years old, had been built up to a stage where any emergency could be tackled adequately.

It now had a strength of 100,000 regulars, reservists and volunteers. Infrastructure such as bomb shelters and the Public Warning System were also in place.

He said: "We have systems, plans and regular exercises whereby our people are better informed and trained on how to minimise suffering, destruction and death."

Now that the basic needs were met, the stage was set for the SCDF to aim at giving civil defence training to at least one person in each of the 800,000 households in Singapore.

This would enable him to



A civil defence auxiliary force could mean volunteers doing specialised tasks alongside regulars. In this 1992 exercise in Bedok, volunteers and a regular work together.

take care of his family and free civil defence officers for more complex duties.

And beyond this, the minister said that the civil defence should form a core of volunteers who could be trained to undertake more specialised tasks like the regulars.

He said: "The scheme, for example, can be similar to that of the Volunteer Special Constabulary which has proven successful in the police force."

"The SCDF should consider

would be useful." If introduced, he said volunteers could be formed into specialised units like firemen or ambulance crews.

As fire-fighters, they would help regular firemen tremendously during periods when there were many fires, such as the Hungry Ghost Month.

And like the VSC officers, the civil defence volunteers could also expect to be paid an allowance.

In addition to proposing the auxiliary scheme, Prof Jayakumar also urged the SCDF to strengthen its expertise in dealing with high-rise fires and chemical accidents.

He said that an accident involving hazardous materials could have serious consequences if the danger was not detected. The leaks were not plugged and the population was not warned.

He noted that the Ministry of the Environment and the Fire Safety Bureau had imposed tight controls over the storage and transportation of hazardous chemicals.

"However, nothing can completely prevent a mechanical failure of the safety system, and a simple human error can spark off a major incident."

The one-day workshop seminar was held at the Ministry of Health auditorium.

▲ Source: The Straits Times © Singapore Press Holdings Limited. Permission required for reproduction. This article was first published on 29 April 1992.

SNIPPETS OF SCDF events and activities



SCDF DAY DINING-IN CEREMONY

Graced by Mr Murali Pillai, Member of Parliament (Bukit Batok SMC) and Member of the Government Parliamentary Committee for Home Affairs and Law, the SCDF Day Dining-In Ceremony was held on 12 April at the Civil Defence Academy. This ceremony commemorates the formation of the SCDF on 15 April 1989 and it is organised for its staff to re-affirm their pledge towards SCDF's core values of Pride and Care.

During the ceremony, several awards were presented to SCDF officers, full-time national servicemen, operationally ready national servicemen and civilian staff who exemplified these values in and beyond the course of their duties, by putting others before self.

▲ Public Affairs Department officers and Duty Media officers at a learning journey held at MediaCorp Campus.

On 7 March, several Public Affairs Department officers and Duty Media officers went on a learning journey at the Media Corp Campus. During the visit, they had the opportunity to learn more about the evolution of Mediacorp at a go-behind-the-scenes tour.



Members of the MHA-SCDF Team 1. The Public Service Pool Competition 2018 finals was held at Toa Payoh Snooker Zone on 2 May 2018. The MHA-SCDF Team 1 competed against 30 other participating agencies and was ranked third place in this competition.

National Civil Defence Cadet Corps is with Enee Dee Sea-See. 21 April at 08:32

HQ NCDCC wishes CPT Calvin Tang Jia Fai and CPT Kimberley Tung Yi Wen a lifetime of love and happiness. Both of them dedicated time and actively assisted NCDCC throughout the years as our Honorary Officers. Best wishes on your new milestone in life as you build your new lives together.

Like Comment Share

188

attached to hand pumps.

It was not until April 1869 that the first official Voluntary Organised Fire Brigade was formed by a Fire Committee that was established with the goal to assess the need for an organised fire brigade. This Voluntary Organised Fire Brigade saw the consolidation of different groups of volunteers formed prior to 1819.

Since then, volunteerism in civil defence has expanded with the establishment of the Civil Defence Auxiliary Corps, National Civil Defence Corps, Civil Defence Lionhearer Clubs as well as SCDF's Vision 2025 in creating A Nation of Lifesavers.

◀ CPT Calvin Tang and CPT Kimberley Tung fell in love with each other when they were cadets of the National Civil Defence Cadet Corps (NCDCC). After graduating from school, they continue to pursue their passion as life savers and today, the couple serve as Honorary Officers with the NCDCC.

In April 2017, CPT Calvin and CPT Kimberley tied the knot.



▲ Guest-of-Honour Dr Janil Puthucheary being updated by the CPX participants on their course of action during the exercise.

COMMUNITY Preparedness EXERCISE

150 community leaders across 24 constituencies were 'activated' following three simultaneous terrorist attacks. This was part of a Community Preparedness Exercise (CPX) conducted on 7 April 2018 at the Anchorvale Community Club.

A follow-up from the "Are We Ready?" Community Seminar organised by 3rd SCDF Division in January 2017, the CPX is a multi-modal table-top exercise featuring a post-terror attack scenario. The CPX was designed in consultation with various partner agencies and the Guest-of-Honour for the event was Dr. Janil Puthucheary, Senior Minister of State, Ministry of

Education & Ministry of Communications and Information.

The scenarios required the community leaders to address a wide range of issues, such as dispelling rumours and managing communal tensions within the community arising from a terrorist incident. Fast-paced scenarios were issued during the CPX through various means such as a messaging application, simulated social media platform, emails, television news broadcasts, and real-life role players to mimic the flurry of activities that would happen both on- and off-line. 🚒



▲ On top of responding to injects sent their way via electronic means, the participants also had to manage 'distressed residents' requesting assistance from the Community Club Operations Centres.



▲ A team led by CPL Hashir Zabir, a firefighter from Yishun Fire Station, customised a simulated social media platform specifically for the purpose of the CPX. The platform was flooded by posts, comments and articles throughout the duration of the two-and-a-half-hour exercise.

COMMUNITY PREPAREDNESS EXERCISE

IN A SNAPSHOT



3rd SCDF Division personnel formulated a series of simulated "attacks" and injects.

PARTNERSHIP AND TEAMWORK

3rd SCDF Division partnered up with 6 other agencies on the exercise design and execution of the exercise.



S&Secure Programme Office
Ministry of Home Affairs



Office of Principal Psychologist
Home Team Behavioural Sciences Centre



Ang Mo Kio Police Division



Emergency Preparedness Division
People's Association



Community Relations and Engagement Division
Ministry of Culture, Community and Youth



OnePeople.SG

PARTICIPATION RATES

150 Community leaders across 24 constituencies in the north and north-eastern regions of Singapore participated in the Community Preparedness Exercise.



Community Club
Operations Centres



Community Emergency and
Engagement Committees



Inter-Racial and Religious
Confidence Circles

61 scenario injects were stress-tested and validated over mock exercises.



▲ LTC Eric Chua, former Commander, 3rd SCDF Division, de-briefing the exercise participants after the CPX.



▲ Once the CPX was declared over, the participants were all smiles and felt more prepared in dealing with the fall out of a terrorist incident.

10 HIGHLIGHTS of SCDF Work Plan Seminar 2018

SCDF's Work Plan Seminar 2018, themed "A Nation of Lifesavers – Future Ready", was held at Singapore University of Technology and Design on 18 April. The seminar showcased SCDF's continuous pursuit to leverage innovation and technology to enhance its operational capabilities.

Robotics and Innovation in SCDF

1 Red Rhino Robot

The Red Rhino Robot (3R), a compact and portable emergency responder robot, extinguishes fire with the use of Compressed Air Foam and water. Leveraging its ability to detect heat and extinguish a fire autonomously, emergency responders are able to monitor the operations from a safe distance and away from the risk area.

Stowed in the newly launched 6th Generation Light Fire Attack Vehicle, SCDF has piloted the envisioned three-plus-one crew concept comprising three firefighters to be complemented by the 3R.

The 3R measures 0.91m long, 0.45m wide, 0.6m high and weighs about 80 kg.



2 Pumper Firefighting Machine

The custom-built Pumper Firefighting Machine can traverse up and down a staircase, fit into passenger lifts and penetrate through premises with a maximum temperature of 250 degree Celsius for up to 10 minutes. Other unique features include a rotating nozzle that can project water mist in 360° angles to quickly lower room temperatures and a high pressure hose reel with a built-in water tank that can allow firefighters to quickly initiate firefighting operations at incidents. Its resistance to heat also means that firefighters will be less exposed to risk during firefighting operations.

3 Exoskeleton (Think Robocopl)

First conceptualised in 2013 by SCDF and the Ministry of Home Affairs' Office of the Chief Science & Technology Officer, the Exoskeleton enhances an emergency responder's performance in firefighting and rescue operations. The Exoskeleton will allow emergency responders to carry heavier firefighting equipment (up to 40 kg) up multiple flights of stairs with less physical strength. It can also function in adverse conditions such as in high temperatures or wet environments.

SCDF is currently assessing the test results to further enhance the prototype.

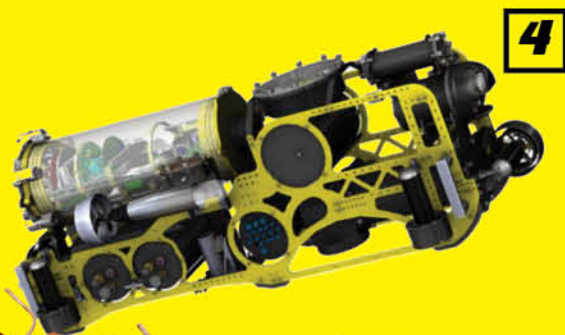


4 Remote-Operated Underwater Vehicle

Equipped with powerful sonar imaging technology, the Remote-Operated Underwater Vehicle is a light-weight device with its own power source. The sonar maps out the terrain underwater and assists ground commanders in planning the search operations more effectively and efficiently.

5 Life Detection Robot

The Life Detection Robot, equipped with multiple detection capabilities in a single platform, heightens search performance when deployed in Urban Search and Rescue operations. It is able to provide visual imaging of areas under the rubble, detect human presence by picking out sound, heat and chemical releases from the human body as well as provide 3-dimensional mapping of the area of operations to aid rescuers in their search and rescue operations.



6 Autonomous Casualty Transporter

The compact Autonomous Casualty Transporter is a highly maneuverable machine that can convey a casualty who weighs up to 100kg over various terrains. With detection sensors, it can move autonomously along pre-determined routes for swift casualty evacuation during major incidents.

8 Dart Rescue Vehicle

The new DART Rescue Vehicle (DRV) integrates the existing capabilities of the Special Rescue Tender and Heavy Rescue Tender (HRT) onto a single platform. Like the modular HRT, the DRV can be loaded with urban search and rescue modules or act as a carrier for DART's Heli-bucket or Skid Loader. The DRV also comprises a personnel cabin for the SCDF's elite team to be suited and briefed at they respond to rescue operations. In addition, this integration allows them to respond to height, land and water rescue incidents simultaneously.

Next Generation Appliances

7 HazMat Control Vehicle

First operationalised in 2015, the HazMat Control Vehicle is now equipped with additional capabilities to enhance public protection in the event of a HazMat incident where a toxic plume can quickly spread across a wide area. They include a Chemical Standoff Detector that can be used to conduct long-range detection of a wide range of chemicals for up to a distance of 5km and Unmanned Aerial Vehicle (UAV) launch pad.

9 myResponder Mobile Application

The fire module in the myResponder Mobile Application alert users to minor rubbish fires that have occurred within their vicinity. Once a responder accepts the alert, he can proceed to the location to extinguish the fire using available means, such as nearby extinguishers, buckets of water, domestic water taps and hoses or drencher systems for rubbish chutes. The responder can also provide SCDF with up to three photos for scene assessment.

With this new initiative, scarce SCDF resources can be deployed to attend to more pressing cases such as life-threatening emergencies. 🚒



ORANGE JACKETS

WO Akbar Ali Bin Mohd Salleh joined the Singapore Fire Service in 1988. WO Reduan Bin Asri came on board the life saving fraternity in 1991, a few years after SCDF integrated with Singapore Fire Service to form the Singapore Joint Civil Defence Force.

Upon completing their firefighting course, WO Akba and WO Reduan were informed by the SCDF Medical Department that they have been selected to become Fast Response Medics. Shortly after, they were enrolled into a course to pick up the skills required of a medic as well as learn to manoeuvre the

400cc Suzuki Bandit motorcycle.

Having a firefighter respond to an incident on a motorcycle was unheard of in Singapore then.

The Fast Response Medics course required WO Akba and WO Reduan to undergo several ambulance and hospital attachments to gain an insight of emergency medical care. The primary function of Fast Response Medics is to provide the quickest medical assistance to those in need during emergencies.

◀ WO Reduan (left) and WO Akbar on the Suzuki Bandit





▲ Fast Response Medic trainees undergoing first-aid practical training.

This means that Fast Response Medics have to be as precise as possible when navigating to the incident site as every second matters in an emergency. Instead of leveraging GPS, a technology which was less heard of then, emergency responders memorised the road names and lanes within their operational boundary.

“Each day, a Senior Driver will test us on how we should respond from the fire station to an incident site. We were required to tell him when and at which lane or street we should be

making the turns at. We did not have GPS then. We relied heavily on the street directory and visual recognition of key roads, buildings and landmarks”, says WO Akba.

Fast Response Medics were issued with a basic set of uniform, comprising an orange jacket and a pair of shin guards which they wore outside their field pants. WO Reduan described the first version of the zipped-up jacket as a “sweater”. It was not until sometime later that they were issued with the second version of the jacket made from a more breathable material.

Fast Response Medics were equipped with some basic rescue tools, a mini fire extinguisher, AED, oxygen tank and first-aid dressings. These items were housed in the small side boxes attached to the motorcycle. The box attached to the back of the motorcycle was reserved for storage of log books.

In the mid-nineties, NSF medics rode pillion and assisted the Fast Response Medics. Depending on the manpower strength of each fire station, the headcount for each turnout was flexible.

“There was only one motorcycle in each fire station then. As we were trained to respond to incidents alone, any additional support that we had was a bonus”, says WO Akba.

Fast Response Medics operated during the period between 7am to 10pm as traffic jams were less of a concern at night time then. They worked two separate shifts. The morning shift spanned from 7am to 3pm and the afternoon shift from 2pm to 10pm. The hand-over was done during the one-hour overlap between the two shifts.

Fast Response Medics were gradually phased out when SCDF started hiring Paramedics in 1996.

▶ Fast Response Medic trainees undergoing theory lessons.



◀ Fast Response Medics wore the orange jacket over their Number 3 uniform as well as a pair of shin guards outside their trousers.



◀ Uniform worn by Fast Response Medics.

▼ Source: The Straits Times © Singapore Press Holdings Limited. Permission required for reproduction. This article was first published on 29 April 1992.

Fast aid in accidents: SCDF motorcycle medics to hit the roads by year's end

CIVIL Defence paramedic teams on motorcycles will be weaving through heavy traffic to help road accident victims. These fast response teams are now being trained and will ride into action by the end of this year. Working in pairs, motorcycle medics can give first aid as soon as possible to the injured, something ambulances have difficulty doing because of traffic jams. Commissioner Chng Teow Hus, the head of the Singapore Civil Defence Force (SCDF), said that five motorcycles have been bought.

It is learnt that the machines are in the 400 cc to 600 cc range, and that the officers are being given motorcycle-handling lessons by the Traffic Police. Mr Chng said that for a start, the fast response teams will be stationed at fire stations in areas where ambulances have had trouble reaching accident victims because of traffic congestion. However, he pointed out that ambulances would still be sent to take the accident victims to hospitals. In his speech at the opening of the SCDF Workplan Semi-

nar, Home Affairs Minister Professor S. Jayakumar also mentioned the fast response medics. He said: “Responding fast to a traffic accident, especially during peak hours, has been a major obstacle to our ambulance officers.” At the seminar, it was also announced that 132 sirens have been installed around the island for the Public Warning System (PWS). The remaining 90 sirens will be set up before the PWS is commissioned in September. When operational, it will be able to sound an island-wide

alarm to warn the public of war-time as well as peacetime emergencies. The sirens have an effective sound range of between 800 m and 1 km and are being installed atop HDB blocks and other high-rise buildings. In areas where the buildings are not tall enough, the sirens will be mounted on special structures so that they may be heard over a wide area. The system can be activated by telephone or radio signals.

SPEEDY

with 'IMPULSE'



▲ (Left to right) SWO Zahari, LTC Han Chee and WO Zalzalani

SWO Zahari Muhammad Zain and WO Zalzalani Salim joined the Singapore Fire Service in the late eighties. For about a decade, they served as what was known affectionately as 'Junior Fire Officer'.

It was not until 1997 when SWO Zahari and WO Zalzalani were told that they will no longer be deployed to incidents on fire engines. Instead, they will be riding Suzuki Impulse motorcycles to reach the incident sites and take on the role as first responders.

Like SWO Zahari, WO Zalzalani already had a Class 2A license.

WO Zalzalani revealed that he was on the verge of giving up his passion in riding motorcycles after he was involved in a traumatic accident. When he first found out about being selected to become a fire biker, he told himself to put aside his fears and take up the new challenge like a brave fireman would.

LTC Lim Han Chee, then Commander of Clementi Fire Station, was tasked to pilot the implementation of the trial phase before it was officially rolled out in other fire stations. The team faced several challenges such as the need for a dual purpose motorcycle helmet that can also be used for fighting fire as well. As such helmets were not readily available in the open market, Fire Bikers also carried with them a fire

helmet.

Instead of relying on the fire engine or a nearby hydrant to douse fires, SWO Zahari and WO Zalzalani were each equipped with a hand-held impulse gun. Each 'gun' is connected to a 13-litre water container and is capable of propelling water droplets at high speed. As the Civil Defence Academy was still under construction then, SWO Zahari and WO Zalzalani attended training sessions at the former SCDF Mandai Training facility. Using materials like wooden crates and discarded items as the fire load, they gradually gained familiarity in the use of the impulse guns.

Despite already having some experience in riding motorcycles, SWO Zahari and WO Zalzalani had to undergo a course to acquire a new set of skills such as cornering the fire bike swiftly and safely while having a 27.5kg impulse gun strapped at the back of the bike as well as two other side boxes that contain rescue tools. In addition, the pioneer batch of trainees was also attached to Traffic Police to learn how to maneuver the fire bike as well as weave in and out of a heavy jam.

"Unlike an emergency responder deployed on a fire engine, a fire biker is able to reach the incident site faster", says SWO Zalzalani.

SWO Zahari and WO Zalzalani are also the first pair of Fire Bikers from SCDF to be deployed to an incident

as Fire Bikers.

"Our first deployment as Fire Bikers was an unforgettable one. Seconds after Zal and myself weaved to the side of the fire engine (with the intention to overtake), a car crashed into the back of the fire engine. If not for the speed in which we were travelling, we would have become casualties instead. It was definitely a close shave", says SWO Zahari.



SCAN TO SEE THEM IN ACTION

By 1999, SCDF had a fleet of 30 Fire Bikes with 24 of them being deployed across 12 fire stations.

Fire bikes join the fight to put fires out speedily

Equipped with hand-held impulse guns that 'fire' water droplets at high speed, they are used to tackle smaller fires

By CHUA CHEE HON

THEY weave through heavy traffic in a flash with their 400 cc motorcycles and make short work of small fires with their 'super soaker'-like impulse guns.

Meet Sergeant Zahari Muhammad Zain and Sergeant Zalzalani Salim. They are among the new breed of firefighters who will soon be a familiar sight on the roads.

The Singapore Civil Defence Force (SCDF) has acquired 30 fire bikes, and 24 of them have been deployed at the 12 fire stations island-wide since yesterday.

Each bike is equipped with a hand-held impulse gun that propels water droplets at high speed.

The gun is mounted at the back of the fire bike and is charged by an air-cylinder connected to a 13-litre water

container.

The 27.5 kg unit is carried by the firefighter like a backpack.

Speaking to reporters at a work-plan presentation yesterday, SCDF Commissioner James Tan said that with heavy traffic and rapid urbanisation, it had become increasingly difficult to respond to all fires within SCDF's target of eight minutes.

The fire bikes provide a speedier and more efficient way of responding to road accidents and smaller fires in rubber chutes and Housing Board flats.

A trial run with two such

bikes at Clementi Fire Station last April showed that in 94 per cent of cases, the bikes could get to their destination within the targeted time.

"For the smaller fires in HDB flats, for example, those men on the fire bikes don't even have to wait for hoses from the fire engines to be laid and can just turn up at the door-step with their impulse guns," added Commissioner Tan.

The SCDF is also looking into stationing these bikes strategically at neighbourhood police posts.

Sgt Zahari, 35, said: "We also act as scouts sometimes. With our radio sets, we can

warn the fire engines to avoid the congested roads.

"And if the fire is small and we can handle it, we will also ask the engines to turn back in case they are needed elsewhere."

On average, the fire bikes can reach the scene twice as fast as the fire engines.

But Sgt Zalzalani, 32, agreed that he could get into accidents himself by rushing to respond on time.

"We remind ourselves to be extra careful every time we move out, and hopefully, more motorists will recognise our bikes from now and give way to us," he said.

Faster way to get to fires



Two of the new breed of firefighters are Sgt Zahari (left) and Sgt Zalzalani, who will zip to a small fire on their 400-cc motorcycles and make short work of it with their hand-held impulse guns.

- ◆ THE SCDF has 30 fire bikes, and 24 of them have been deployed at the 12 fire stations across the whole of Singapore.
- ◆ Each motorcycle is equipped with a hand-held impulse gun that propels water droplets at high speed. It is mounted at the back and is charged by an air cylinder connected to a 13-litre water container. The 27.5-kg unit is carried by the firefighter.
- ◆ On average, the fire bikes can reach the scene twice as fast as the fire engines.

Fireman of the future

- Rides a motorbike
- Straps on a water tank
- Carries a 'super soaker'

By Melissa Heng

THE fire-fighter of the future could be someone who zips through traffic on a motorcycle with a water tank strapped to his back and a "super soaker" in his hand.

This may seem incredible now, but as the Singapore Civil Defence Force (SCDF) prepares itself for the next century, such ideas could well become reality.

SCDF Commissioner James Tan said: "We already have fast-response medics on motorcycles; maybe we could have fire-fighters on bikes too."

This would allow fire-fighters to reach the scene faster and keep the fire under control, while waiting for fire engines to arrive.

Instead of using a water hose, the biker-fireman will carry an Impulse Gun instead.

Shaped like a machine-gun, the German-made equipment looks like a gigantic water pistol, which is ideal for fighting small fires.

Mr Tan said: "It is not too heavy and can be operated by one man. It is good for fighting small house fires."

The SCDF is seriously considering buying such "guns" for its fire-fighters soon.

Other gun-like "toys", which are already on the SCDF's list of must-buy equipment, include:

■ The Pyrometer: This laser gun can read the temperature of a fire from 25 metres away, so that fire-fighters will be prepared with the right protective equipment when they go in.

■ The Air gun: A compact power drill powered by air instead of electricity. It can be used to break concrete and can even drill holes in the ground.

They were among the high-tech exhibits on display at the Chinese High School yesterday.

It was held together with the SCDF workplan seminar, which was opened by the Home Affairs Minister, Mr Wong Kan Seng.

In his keynote address, he stressed the need for the SCDF to upgrade constantly and urged its officers to use the



new technology to become "world-class" fire-fighters and rescuers.

So they must change their mindset and improve their work methods, he said.

This year, the SCDF plans to relax the rules of the Fire Code and give fire-fighters on the ground more opportunities to make command decisions.

It is also poised to take over command and control of civil emergencies from the police.

A joint Command, Control and Communications system for the Home Team will also be worked out between the SCDF, police and the Central Narcotics Bureau.

Mr Tan said: "World-class means first, second or third. But in Asia, we must be Number 1."

FIRE CODE TO BE RELAXED

THE Fire Code, which prescribes fire-safety measures in buildings, will be reviewed and relaxed later this year.

Fire Safety Bureau director Boo Geok Kwang told the Singapore Civil Defence Force at its annual workplan seminar yesterday that a "rehash" of the Fire Code is needed to weed out outdated regulations.

He said some flexibility is needed when enforcing the code in new building developments.

The 1991 Code of Practice for Fire Precautions in Buildings requires masonry construction for walls separating one dwelling from another, for example.

In future, masonry may be replaced with other forms of construction, such as fire-rated board, that can help speed up construction and save labour.

Timber may be allowed for attic floors, instead of concrete.

Two fire exits may be required only for apartments larger than what is stipulated now.

Discussions on these revisions will take place soon and the new Fire Code Handbook should be ready by September.

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LIM SIN THAI

The watermist system cuts down on water wastage and minimises damage to furniture and valuables. It is suitable for dealing with small residential and vehicle fires.

Misty way to douse fires fast

SCDF wins Eureka Award for coming with new device which puts out fire faster and with less water

By SUE-ANN CHIA

INSTEAD of dousing fires with strong jets of water, fire-fighters are using new equipment that will give "a lighter touch" to fire-fighting.

Called a high-pressure watermist system, it sprays extremely fine water droplets, like a mist, that transform instantaneously into steam, which then smothers the fire.

The equipment not only cuts down on water wastage, but it also minimises damage to furniture and valuables.

It also absorbs heat faster and the droplets have the capacity to quickly bind the toxic particles of smoke, enhancing the chances of survival for fire victims.

For coming up with this new equipment, the Singapore Civil Defence Force (SCDF) won a Eureka Award yesterday, as part of the National Quality Circle Awards, which recognise innovative projects.

The award was presented at the International Exposition of Innovation and Quality Circles 2001 organised by the Singapore Productivity and Standards Board.

Altogether, nine organisations, nine individuals and 12 teams walked

away with the Quality Circle Awards.

A team of eight SCDF staff members began research on the watermist technology last year as part of the organisation's WIT (Work Improvement Team) project to improve its current impulse-gun method.

During initial tests, the SCDF set a bedroom of an empty HDB flat on fire and used both the conventional and watermist fire-fighting techniques to douse the flames.

Using the impulse gun, which fires water droplets at high speed, it took 3,600 litres of water to extinguish the fire in 10 to 15 minutes.

The watermist system used only 36 litres of water and was able to put out the fire under three minutes.

SCDF's operations manager, Captain Alvin Tan, said that the watermist system has since been installed in the Red Rhino, a small fire-fighting vehicle, as a pilot project.

The new device is suitable for dealing with small residential and vehicle fires.

Portable watermist systems will be ready by the middle of next year.



SCDF's Emergency Medical Service Response Framework provides faster and enhanced assistance for life-threatening emergencies



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LOVE BIKES

▼ SWO Shahrel and Nuraslinda were Section Commanders at Jurong Fire Station before they became Fire Bikers.

Nuraslinda Bte Osman is currently a pre-school teacher.

Before that, she worked as an armed auxiliary police officer as well as a firefighter. At 18 years old, she had the approval from her parents to pursue a bike license. Little did she know that the license will come in handy during her stint as a Section Commander at Jurong Fire Station.



▲ SWO Shahrel and Nuraslinda fell in love with each other when they were serving as Fire Bikers at Jurong Fire Station.

After a few months into her job as a firefighter, Nuraslinda volunteered herself to fill up the vacant fire bike post at Jurong Fire Station. Nuraslinda explained that while she was equipped with the years of experience in riding motorcycles, she was taught a different set of skillsets required by emergency first responders during the fire bike course.

"It was very different from riding on the road as a commuter. During my time, Fire Bikers were required to learn advanced riding skills such as making high-speed U-turns while taking into account the heavy load (impulse gun and an assortment of portable rescue tools) that we had on the fire bike.", says Nuraslinda.

As a fire biker, Nuraslinda worked closely with SWO Mohamed Shahrel Bin Shawall Hamid as a tag team.

"At first sight, I did not expect her to be so adventurous. At incidents, we were very telepathic such that we worked together seamlessly.", says SWO Shahrel.

SWO Shahrel and Nuraslinda operated their own Fire Bikes when responding to incidents. This was no different from the time they spent as colleagues during their rest days. It was not until their first date (to a blood donation drive) that Nuraslinda rode pillion.

Three days before their wedding, the couple responded to a factory fire call at Jalan Tukang. As first responders, they informed operations centre that the fire was already well alight. Upon the arrival of other emergency appliances, SWO Shahrel and Nuraslinda also assisted their colleagues with the firefighting operations.

"At one point of the firefighting operations, my colleague asked me if my bride-to-be was also fighting the fire as we were known as the fire biker tag team. I told him that she was already deployed deeper into the incident site and he chuckled. Well, that sums up our relationship!", recalls SWO Shahrel.

The couple wedded on 14 July 2007. 🍷



▼ SWO Shahrel, Nuraslinda and their three children.

W

O Gangadevi Rountan and SGT Anisah Ismail rode the rough road to success.

Unlike most of her peers, WO Gangadevi went through the fire biker course twice. At her first practical assessment, she fell from the fire bike when attempting a U-turn at the last 50 metres of the obstacle course.

Yet, this failure did not deter her. With the support from her colleagues and Civil Defence Academy's instructors, she passed the subsequent assessment with flying colours.

WO Gangadevi is not alone in this journey.

Each time SGT Anisah Ismail sees her battle scar caused by a recoil from using the impulse gun, she is reminded of her days at Bishan Fire Station as a fire biker.

Having served several years as Section Commanders at the fire station, WO Gangadevi and SGT Anisah were already fluent with fire and rescue operations. As avid motorcycle riders, there was no turning back for them the moment they learned about the opportunity to marry their passion for riding motorcycles with their life saving mission.

Little did they know that the few tweaks in their job routine would mean a whole new world to them.

Fire Bikers are physically prone to both wet and dry weather conditions unlike their days in the enclosed fire engines. There had also been occasions when it started raining when they were making their way to the incident site or fire station. SGT Anisah said that this is when their riding skills were put to the test as they will have to balance the fire bike that is loaded with heavy equipment while travelling on the slippery roads. It takes just one wrong move to risk getting involved in a road traffic accident.

"As emergency responders, our role

is to attend to those in distress. It should not be the other way round especially when we are on duty. Should we get into an accident, this would mean one additional case which will demand for SCDF resources as well as a delayed response", says SGT Anisah.

When asked if there is a difference in being the rose among the thorns, WO Gangadevi said that the training provided for Fire Bikers allows for any emergency responder to acquire the required skills and knowledge to perform the job. With sufficient practice, it is just a matter of time before the emergency responder learns how to manoeuvre the fire bike with grace and in an intuitive manner.

SGT Anisah also had the opportunity to be part of fire bike display during the 2006 National Day Parade that was held at the old National Stadium. Together

GUNS & Roses

with another female colleague, they displayed their skillsets in riding the fire bike and of course, they did not forget to slip in some ticks for that added wow factor. 🏍️



▲ SGT Anisah was previously a fire biker.



W

O Kee Seng Teck has been riding different generations of Fire Bikes for the past 13 years. Other than upgrading from one fire bike to another, he is also constantly learning new skillsets as he moves along this meaningful journey.

When WO Seng Teck first took on this role in 2005, he attended only to fire incidents. It was not until 2013 that he began to attend to both fire and medical cases.

With the recent implementation of the new Emergency Medical Service Response Framework, WO Seng Teck is now dual-trained as a firefighter who is also equipped with knowledge and skillsets of an Emergency Medical Technician (EMT).

In addition to the years of experience as a SCDF fire biker, WO Seng Teck was also once the owner of a powerful 1,000cc motorcycle. While there is no doubt that this cheerful gentleman craves excitement, speed and adventure, it is clear that the fireman in him also firmly believes in upholding a high level of safety when for riding.

EMT -FIRE BIKER

◀ WO Seng Teck is currently an EMT-fire biker at Central Fire Station



incident. For example, he would usually stop riding in the event of a heavy down pour and return to base only when the weather has subsided.

“Apart from slippery roads, the vision of other commuters may also be impaired as a result of the downpour. It is only responsible that we take shelter as this can prevent the occurrence of another potential accident”, says WO Seng Kee.

For WO Seng Teck, he has personally experienced the differences of being a Section Commander and a EMT-fire biker. As a Section Commander, he took on the leadership role in guiding his firefighters on the required to-do tasks at an incident site. In addition, he had think on his feet on how to effectively and efficiently allocate the resources (such as water supply) available to tackle the challenges of each emergency.

When in the shoes of a EMT-fire biker, he is no longer supported by a team of fellow emergency responders. Instead, he will have to make his own assessments of the emergency as the sole emergency responder at scene. At times, he might even have to source for the seat of the fire with the limited resources he has while he waits for the rest of the emergency responders to arrive at scene.

More often than not, EMT-Fire Bikers like WO Seng Teck will also have to handle the affected family members while concurrently assessing and treating the patient.

“It can be very emotional at times especially when the affected family members are overcome with emotions. The years of ground experience have certainly been helpful for first responders like us. It has taught us way to remain professional and focused on our task at hand despite the sea of emotions surrounding us. It is important that take control of every situation and prevent any sort of commotion from interfering with our medical intervention. It can be challenging especially when we have to handle all of this alone, prior to the arrival of the ambulance”, says WO Seng Teck.

Yet, WO Seng Teck is not deterred by these challenges. In fact, he takes pride in being an EMT-fire biker who has been bestowed the responsibility to make the first assessment of any emergency.

“That’s the whole point of being a life saver!”, exclaims WO Seng Teck with pride. 🚒

“It is important for Fire Bikers to practice the defensive riding techniques when responding to incidents. While we want to be able to reach our destination as quickly as possible, we must also ensure that we can arrive in one piece!”, says WO Seng Kee.

WO Seng Kee said from experience that Fire Bikers should also be able to discern when they should take a step back from responding to an

WO Anuar Bin Osman

CPT Mohamed Faizal S/O Latiff

SSG Iskandar Bin Muhamad

SSG Suhery Bin Suheyar



Fire

PASSION AND PLAY

In July 2016, the Emergency Medical Technician (EMT) Fire Bikers Committee was formed to represent the SCDF EMT-Fire Bikers on administrative and operational matters. As the eight members of the committee are EMT-Fire Bikers themselves,

they also play an important role in the development and design of an 'ideal' bike which can meet SCDF's comment and future operational needs. In addition, they act as a pillar of support for new EMT-Fire Bikers.

CPT Mohamed Faizal S/O Latiff, Commander of Woodlands Fire Station, who heads the committee says that his operational experience and knowledge in motorcycles has helped him understand and identify the common issues faced by Fire Bikers. His

maiden ride was a Yamaha FJR 1300 and over a span of 11 years, he transited to the Super-Four, coincidentally one of the older fire bike models, Honda ST11 and his current BMW oil-cooled R1200 GS Adventure. As a keen tourer, his experience on riding on



SSG Khairul Zaman Bin Khairudin

SSG Syed Hafiz Bin Syed Shamshudin

SSG Herman Bin Rahmat

SSG Shahrul Rizal Bin Abdul Rahim

terrains from different countries has also allowed him to acquire the perspective of how defensive and skilful riding should be practiced.

Working hand-in-glove with the committee members, CPT Faizal takes on the consultative role when formulating new solutions and policies to meet operational needs. The fruits of their labour include the constant review of the fire bike design and equipment carried on board to help EMT-Fire Bikers assimilate to the demands of their job. WO Herman Bin Rahmat said that one of the many small triumphs of the committee include the firefighting bunker gear worn by EMT-Fire Bikers. Unlike the previous versions of the bunker gear worn by EMT-Fire Bikers, the current version doubles up as a raincoat to provide optimum riding protection for the EMT-Fire Bikers.

SSG Syed Hafiz Bin Syed Shamshudin added that there is no difference between the helmet worn by a regular motorcycle rider and EMT-fire biker. Nevertheless, the committee is still on an active hunt for an operational helmet that will fit EMT-Fire Bikers more comfortably.

Together with the Civil Defence Academy, the committee has also introduced a new module to the curriculum of the EMT-fire bike course to help new EMT-Fire Bikers assimilate to their roles seamlessly. SSG Iskandar Bin Muhamad said from experience that it can be dangerous to ride alone to incident sites during the wee hours, in particular when a EMT-fire biker is required to respond to a case that occurred at a dark and quiet vicinity located within unfamiliar boundaries. Instead of responding as part of a team, EMT-Fire Bikers are often expected to handle such challenges alone.

The new module was designed by the committee to help new EMT-Fire Bikers adapt to the inevitable changes of their new work flow and all these are possible because the committee members are also EMT-Fire Bikers themselves and some with almost a decade of experience under their belt.

WO Anuar, team leader of the committee, was sworn in to the fire bike fraternity in 2009. Since then, he has ridden different models of the Fire Bikes which range from the Honda CB400 Super-Four Project Big-1, Honda Spec 1, 2, 3, Revo to the current Piaggio MP3. WO Anuar revealed that he holds close to his heart the first successful case of reviving a cardiac arrest casualty who collapsed while jogging at East Coast Park. This incident continues to motivate him to do his best as an EMT-fire biker.

SSG Shahrul Rizal Bin Abdul Rahim, another member of the committee, grew up in Alexandra Fire Station where his father served as a fireman. He disclosed that his interest in motorcycle racing has helped sharpen his riding skills as a whole and in turn benefited him as a EMT-fire biker.

SSG Sharul is not the only avid racer. It seems that it is a shared passion amongst the committee members such as SSG Abdul Rahman B Mohamed Yusof who has ridden through the scenic mountain passes of Laos and Vietnam (commonly known as the The Ho Chi Minh Trails).

It is no doubt that the EMT-Fire Bikers Committee is very much triggered by their passion for motorcycles as well as the lifesaving calling. 🏍️

SCDF
The Life Saving Force



TOGETHER 
A NATION OF LIFESAVERS