

POST-CONFERENCE REPORT CRISIS MANAGEMENT CONFERENCE 2016

10 to 12 November 2016, Singapore

INTRODUCTION

1. The Crisis Management Conference 2016 was held in Singapore from 10 to 12 Nov 2016. The Singapore Civil Defence Force (SCDF) hosted the conference under the theme of *Transformation and Innovation in Emergency Management*. The three sub-themes for the conference are:
 - a. Leveraging on technology and innovations for disaster and emergency management;
 - b. Partnerships with private sector and non-governmental organisations (NGOs) in disaster and emergency management; and
 - c. Intensifying capacity for faster and reliable emergency response and emergency risk reduction.
2. 72 participants from 8 cities participated in the conference. Participating cities included 6 member cities of the Network for Crisis Management (Jakarta, Kuala Lumpur, Seoul, Singapore, Taipei and Tokyo) and 2 observing cities (London and New Taipei City). The list of participants can be found in **Annex A**.
3. The 3-day event comprised of a half-day tour of the Singapore Civil Defence Academy and the Home Team Tactical Centre on 10 Nov 2016, the plenary session on 11 Nov 2016 and a visit to the SCDF Ready Week events on 12 Nov 2016. The detailed programme can be found in **Annex B**.

TOUR OF SINGAPORE CIVIL DEFENCE ACADEMY AND HOME TEAM TACTICAL CENTRE

4. The Crisis Management Conference 2016 started with a visit to the Singapore Civil Defence Academy. After a brief presentation about the facilities, SCDF showed the 24 international participants the academy's Advanced Command Training System (ACTS), which made use of modelling and simulation technology to exercise the strategic thinking and the command and control skills of SCDF frontline commanders, as well as the external simulators at the field training area.
5. The participants then visited the Home Team Tactical Centre with advanced simulators to provide training on Urban Search and Rescue and firefighting in a ship and chemical hub. The factsheets of the ACTS and the Home Team Tactical Centre can be found in **Annex C**.

SUMMARY OF PRESENTATIONS AND DISCUSSIONS (PLENARY SESSION)

Welcome Remarks by Mr Eric Yap, Commissioner of SCDF and Opening Address by Mr Desmond Lee, Senior Minister of State, Ministry of Home Affairs (Singapore)

6. Mr Eric Yap, Commissioner of SCDF opened the Crisis Management Conference 2016, welcoming all the international participants to Singapore. He shared briefly on the transformation and innovation journey of the SCDF and the relevance of transformation and innovation of organisations to emergency and crisis management. He also wished all the participants a constructive and positive meeting. Mr Desmond Lee, Senior Minister of State, Ministry of Home Affairs (Singapore) elaborated on the challenges of emergency management in Singapore and shared the emphasis on operational excellence, civil protection and community engagement. He also joined in welcoming the participants. The welcome remarks by Mr Eric Yap and opening address by Mr Desmond Lee can be found in **Annex D.**

Keynote Presentations by SCDF and ASEAN Coordinating Centre for Humanitarian Assistance on disaster management (AHA Centre)

7. The first keynote presentation **“Leveraging on Technology & Innovation to Build a Lean and Effective Organisation”** by Mr Ling Young Ern, Director Operations Department of SCDF focused on how SCDF leveraged on technology, streamlined processes, increased staff competencies and multi-tasking to create a lean and effective organisation to deal with the challenges of emergency management in Singapore such as ageing population and growth of industries.
8. Mr Said Faisal, Executive Director of the ASEAN Coordinating Centre for Humanitarian Assistance on disaster management (AHA Centre), was the second keynote presenter. His presentation **“ASEAN Regional Mechanism on Disaster Management”** covered the disaster landscape of the South East Asian region and the initiatives and operations of the AHA Centre to coordinate resources and joint efforts from the national disaster management organisations of the countries in ASEAN.

Presentations by participating cities on the subtheme: - Leveraging on technology and innovations for disaster and emergency management

9. Mr Hiroyuki Ozawa, Director for Disaster and Emergency Information, Tokyo Metropolitan Government started his presentation **“Building a System to Ensure Stable Life for Citizens and Swift Recovery From Disasters”** by elaborating on the recent earthquakes that occurred in Japan and how the local community and government reacted and responded to the disasters. He then presented on how Tokyo created a system of inspection and issuance of “damage certificates” to distribute aid and resources effectively to households that were affected by earthquakes. He ended his presentation by sharing the future directions, which included wider use of the system, making local governments ready to support each other during disasters and thereby ensuring swifter recovery from disasters.
10. Mr Chen Tsung Yueh, Deputy Commissioner of New Taipei City Fire Department, presented on the **“The New Thinking and Practical Operation of Disaster Rescue in New Taipei City”**. As a new observing city for the CMC 2016, Mr Chen shared a few emergency incidents that took place in New Taipei City and how the fire department learnt and implemented new practices to prevent recurrences. He also presented on the organisational structure of the New Taipei City Fire Department and the implementation of the Earthquake

Disaster Relief Strategy Implementation Plan, which included Special Search and Rescue Organisation, Heavy Machinery Troop, enhancing the search capabilities of Search and Rescue Dogs and establishing a coordination system.

Presentations by participating cities on the subtheme: - Partnerships with private sector and non-governmental organisations (NGOs) in disaster and emergency management

11. Mr Peter Cowup, Director of Exercise Unified Response from London Fire Brigade, also an observing city of CMC 2016, presented on **“Exercise Unified Response”**, a large multi-agency emergency services exercise staged in Europe. He shared how the exercise was conducted at four sites simultaneously across central and southeast London, as well as footages of the preparations and conduct of the exercise.
12. Mr Shinsuke Kijima, Superintendent, from the Tokyo Metropolitan Police Department presented on **“Leveraging Tokyo’s Human Resources: Student Volunteers and Language Support Volunteers”**. He shared on how the Tokyo metropolitan government engages and trains student volunteers and language volunteers in Tokyo to assist in communicating with foreigners during disasters.

Presentations by participating cities on the subtheme: - Intensifying capacity for faster and reliable emergency response and emergency risk reduction

13. Dr Subejo, Head of the Jakarta Fire Department shared the challenges of emergency management in Jakarta and their fire prevention strategies such as enforcement, community engagement and leveraging on technology for data collection during his presentation on **“Fire Emergency Response and Risk Reduction Plan”**.
14. Mr Kao Yu Cheng from Taipei City Government Fire Department gave a presentation on **“Typhoon-Flood Emergency Response and Surveillance of Taipei City”**. The presentation covered how the collaboration between an academic institute (i.e. National Taiwan University Atmospheric Sciences Department) and an operational agency in Taipei could help to provide early warning information and recommendations for dispatching of resources in Taipei City.
15. For the presentation on **“The Changing Face of Emergency Medical Services (EMS) in Tokyo”**, Mr Masayoshi Tsuchiya, Chief of Fire Academy of Tokyo Fire Department shared on the growing number of ambulance calls in Tokyo and the need for Japanese dispatchers to communicate in foreign languages. He also explained how the Tokyo Fire Department trained its staff to communicate in English and placing ambulance units at strategic locations to better respond to medical emergencies.
16. The last presentation **“The Change of Disaster Response Training Paradigm using Simulation”** was on the use of virtual technology by Seoul Metropolitan Fire and Disaster Headquarters to aid in the training of the responders. The presenter was Mr Kim Seong Gon, Chief of Incident Command Training Center.

Presentation of the Annual Report by Ms Eri Kinoshita from the Tokyo Metropolitan Government and Announcing Next Host City

17. Ms Eri Kinoshita from the Tokyo Metropolitan Government and secretariat of the network, reported on the framework of the network with emphasis on knowledge sharing, human resource development and information exchange. She shared on the annual achievements of the network; namely through the conduct of CMC 2016, participation of CMC member cities in joint drills in Tokyo and international USAR course in Singapore. She then announced that Seoul would be the next host city for Crisis Management Conference in 2017.

Address by Next Host City

18. Mr Kim Sun young, Deputy Commissioner of Seoul Fire Department expressed their deepest appreciation and thanks to the Tokyo Metropolitan Government for selecting Seoul as the next host city and Singapore Civil Defence Force for hosting the conference this year. He also took the opportunity to invite all the participants to Seoul next year for the Crisis Management Conference 2017.

Chairman's Summary and Closing Remarks

19. Mr Eric Yap closed the session by highlighting the learning points from each of the presentations and sharing how the member cities could work closely through exchanges. He also emphasised the merits of being part of the network. At the end of the session, Mr Yap invited all the participants for a welcome dinner at Singapore Expo. The Chairman's summary is found in **Annex E**.

VISIT TO SCDF READY WEEK 2016

20. Participants were invited to visit the SCDF Ready Week events at the Singapore Expo. The events comprised of a tour of the Life Savers Connect exhibition in the morning, followed by a ceremony commemorating the signing of two memorandum of understandings between 4 organisations.
21. The participants were also invited to grace the SCDF Day Parade and the Singapore Global Firefighters and Paramedics Challenge 2016 that took place at the same venue.

INTERNATIONAL PARTICIPANTS

S/No.	City	Name	Appointment
1	Tokyo	Mr Hiroyuki Ozawa	Director for Disaster and Emergency Information, Disaster prevention Division, Bureau of General Affairs, Tokyo Metropolitan Government
2	Tokyo	Mr Masayoshi Tsuchiya	Chief of the Fire Academy, First Assistant Chief, Tokyo Fire Department
3	Tokyo	Mr Dai Ito	Chief of the International Affairs Branch, Administration Section, Tokyo Fire Department
4	Tokyo	Mr Shinsuke Kijima	Superintendent, Disaster Division, Security Bureau, Tokyo Metropolitan Police Department
5	Tokyo	Mr Toru Arai	Assistant Police Inspector, Disaster Division, Security Bureau, Tokyo Metropolitan Police Department
6	Tokyo	Ms Eri Kinoshita	Deputy Director for International Projects, International Affairs Division, Office of the Governor for Policy Planning, Tokyo Metropolitan Government
7	Tokyo	Ms Haruka Asano	Senior Staff Member, International Affairs Division, Office of the Governor for Policy Planning, Tokyo Metropolitan Government
8	Tokyo	Mr Yuma Shibutani	Staff Member for International Projects, International Affairs Division, Office of the Governor for Policy Planning, Tokyo Metropolitan Government
9	Tokyo	Mr Keisuke Kogure	Deputy Director, Singapore Representative Office, The Japan Council of Local Authorities for International Relations
10	Tokyo	Mr Kenji Nii	Deputy Director, Singapore Representative Office, The Japan Council of Local Authorities for International Relations
11	Jakarta	Dr H Subejo	Head of Jakarta Fire Department
12	Jakarta	Mr Denny Wahyu Haryanto	Head of BPBD DKI Jakarta
13	Jakarta	Mr Prayudha Pubian Hajiansyah	Staff officer, Jakarta Capital City Government
14	Seoul	Mr Kim Sunyoung	Deputy Commissioner, Seoul Metropolitan Fire & Disaster Headquarters
15	Seoul	Mr Jeong Jinhyeok	Chief of Incident Command Training Center, Seoul Metropolitan Fire & Disaster Headquarters
16	Seoul	Mr Kim Seonggon	Seoul Metropolitan Fire & Disaster Headquarters
17	Taipei	Mr You Jiayi	Senior Specialist Taipei City Fire Department
18	Taipei	Mr Kao Yucheng	Assistant Planner Taipei City Fire Department

19	New Taipei City	Mr Chen, Tsung-Yueh	Deputy Commissioner, New Taipei City Fire Department
20	New Taipei City	Mr Hsiao Po Huan	Technical Specialist, New Taipei City Fire Department
21	London	Mr Peter Cowup	Former Assistant Commissioner and now Director of Exercise Unified Response, London Fire Brigade
22	London	Mr Richard Abbot	Project Lead, Exercise Unified Response, London Fire Brigade
23	Kuala Lumpur	Mr Fazlisyah bin Muslim	Assistant Director of Force Management, Malaysia Civil Defence Force
24	AHA Centre	Mr Said Faisal	Executive Director, AHA Centre

LOCAL PARTICIPANTS (SINGAPORE)

S/No.	Name	Appointment
1	Desmond Lee	Senior Minister of State, Ministry of Home Affairs
2	Eric Yap	Commissioner, Singapore Civil Defence Force (SCDF)
3	Chong Hoi Hung	Deputy Commissioner, SCDF
4	Anwar Abdullah	Senior Director (Emergency Services), SCDF
5	Chin Lai Fong	Director Logistics Department, SCDF
6	Ling Young Ern	Director Operations Department, SCDF
7	Lee Yam Ming	Director Strategic Planning Department, SCDF
8	Lian Wee Teck	Director Central Enforcement Department, SCDF
9	Abdul Razak	Director Public Affairs Department, SCDF
10	Eric Chua	Commander 3rd SCDF Division
11	Lee Bee Hong	Director National Service Personnel Department, SCDF
12	Abdullah Bin Abu Bakar Bafadhal	Commander, Tuas Fire Station
13	Alex Chan Yong Ren	Rota Commander, West Coast Marine Fire Station
14	Andy Tan	Senior Staff Officer, Shelter Management
15	Benjamin Daron Phoon	Rota Commander, Ang Mo Kio Fire Station
16	Carolyn Low	Assistant Director Medical Department (Readiness)
17	Chan Keen Mun	Assistant Director Shelter, Fire Safety Shelter Department
18	Charles Chow	Chief Instructor, National Service Training Institute
19	Chng Chin Kiat	Rota Commander, Bukit Batok Fire Station
20	Goh Boon Han	Senior Assistant Director, Operations Department
21	Hobart Lee	Commander, Bishan Fire Station
22	Jimmy Yu	Commander, Jurong Fire Station
23	Leow Tian Soon	Commander, Brani Marine Fire Station
24	Lim Boon Hwee	Assistant Director Training Department (Doctrine & Exercise)
25	Matthew Chua	Senior Instructing Officer, Civil Defence Academy
26	Muhammad Rizal Bin Zakaria	Commander, Paya Lebar Fire Station
27	Neo Jia Qi	Commander, West Coast Marine Fire Station
28	Toh Li Yan Clara	Commander, Banyan Fire Station

29	Wilfred Lim Junren	Commander, Central Fire Station
30	Esther Low	Assistant Director, Medical Department (Projects)
31	Wesley Ho	Head Operations, 2 nd SCDF Division
32	Ram Das	Deputy Head Planning, AES
33	Wang Changrong	Senior Staff Officer, Ops Planning, AES
34	Ng Boon Sim	Executive Manager, Info-Communications Media Development Authority of Singapore (IMDA)
35	Lee Kim Leng	Executive, Operation Preparedness Division, IMDA
36	Li Zufen	Manager, Operation Preparedness Division, IMDA
37	Peh Kwang Hwee	Executive Manager, Operation Preparedness Division, IMDA
38	Ivan Loong	Consultant, IMDA
39	Muhammad Aminoor Bin Sibal	Manager, Emergency Preparedness, Maritime and Port Authority of Singapore (MPA)
40	Kelvin Ching	Marine Officer, Emergency Preparedness, MPA
41	Lim Khok Cheng	Controller, Emergency Preparedness, MPA
42	Halmie H Mattar	Head, Emergency Preparedness, National Environment Agency (NEA)
43	Vincent Ooi	Assistant Director, Emergency Preparedness, NEA
44	Sam Beng Yew	Senior Manager, Public Utilities Board (PUB)
45	Zhang Junyang Samuel	Senior Manager, Emergency Preparedness, PUB
46	Loh Yue Kuan	Head Operations, Singapore Police Force (SPF)
47	Tan Yong Liang	Head Operations, Singapore Police Force (SPF)
48	Pushpa Ramasamy	Senior Officer, Singapore Tourism Board

PROGRAMME FOR CRISIS MANAGEMENT CONFERENCE 2016**10 Nov 2016 (Thursday) – Visit to Civil Defence Academy and Home Team Tactical Centre**

Time	Activity
13:00 – 13:30	Registration and picking up participants from hotels
13:30 – 14:15	Enroute to Singapore Civil Defence Academy
14:15 – 15:00	Welcome Address by Mr Lee Yam Ming, Director, Strategic Planning Department, Singapore Civil Defence Force <u>Presentations</u> ➤ Overview of Civil Defence Academy and Home Team Tactical Centre
15:00 – 16:00	<u>Tour of Civil Defence Academy</u> ➤ Advanced Command Training System (ACTS) ➤ External Simulators
16:00 – 16:15	Refreshments
16:15 – 16:45	Transit to Home Team Tactical Centre
16:45 – 17:30	<u>Tour of Home Team Tactical Centre</u> ➤ Leaning Tower ➤ Orca ➤ Diamond

11 Nov 2016 (Plenary Session)

Time	Programme	Speaker/Presenter
09:35 – 09:45	<i>Welcome Remarks</i> by Commissioner of SCDF	Mr Eric Yap, Commissioner of SCDF
09:45 – 09:55	<i>Opening Address</i> by the Guest-of-Honour	Mr Desmond Lee, Senior Minister of State, Ministry of Home Affairs
09:55 – 10:35	Tea Break and Group Photo	
10:35 – 10:50	Introduction of participants	
10:50 – 11:10	1 st Keynote Presentation: <i>Leveraging on Technology & Innovation to Build a Lean and Effective Organisation</i>	Mr Ling Young Ern, Director Operations of SCDF
11:10 – 11:30	2 nd Keynote Presentation: <i>ASEAN Regional Mechanism on Disaster Management</i>	Mr Said Faisal, Executive Director of AHA Centre
11:30 – 11:50	<i>Building a System to Ensure Stable Life for Citizens and Swift Recovery From Disasters</i>	Mr Hiroyuki Ozawa, Director for Disaster and Emergency Information, Tokyo Metropolitan Government
11:50 – 12:10	<i>The New Thinking and Practical Operation of Disaster Rescue in New Taipei City</i>	Mr Chen Tsung Yueh, Deputy Commissioner of New Taipei City Fire Department
12:10 – 12:30	<i>Exercise Unified Response</i>	Mr Peter Cowup, Director of Exercise Unified Response, London Fire Brigade
12:30 – 14:30	Lunch	
14:30 – 14:50	<i>Leveraging Tokyo's Human Resources: Student Volunteers and Language Support Volunteers</i>	Mr Shinsuke Kijima, Superintendent, Disaster Division, Security Bureau, Tokyo Metropolitan Police Department
14:50 – 15:10	<i>Fire Emergency Response and Risk Reduction Plan</i>	Dr H. Subejo, Head of Jakarta Fire Department
15:10 – 15:40	Tea break	
15:40 – 16:00	<i>Typhoon-Flood Emergency Response and Surveillance of Taipei City</i>	Mr Kao Yu Cheng, Assistant Planner, Taipei City Government Fire Department
16:00 – 16:20	<i>The Changing Face of Emergency Medical Services(EMS) in Tokyo</i>	Mr Masayoshi Tsuchiya, Chief of Fire Academy, First Assistant Chief, Tokyo Fire Department
16:20 – 16:40	<i>The Change of Disaster Response Training Paradigm using Simulation</i>	Mr Kim Seong Gon, Chief of Incident Command Training Centre, Seoul Metropolitan Fire and Disaster Headquarters
16:40 – 17:00	<i>Annual Report from Secretariat and Announcing Next Host City</i>	Ms Eri Kinoshita, Tokyo Metropolitan Government
17:00 – 17:15	<i>Address by Next Host City</i>	Mr Kim Sunyoung, Deputy Commissioner, Seoul Metropolitan Fire and Disaster Headquarters
17:15 – 17:30	<i>Chairperson's Summary</i>	Mr Eric Yap, Commissioner of SCDF
18:30 – 20:00	<i>Welcome Dinner</i>	

12 Nov 2016 (Saturday)

<i>Life Savers Connect Exhibition + SCDF Day Parade + Singapore Global Firefighters and Paramedics Challenge (SGFPC) 2016</i>		
10:30 – 11:20	Tour of Life Savers Connect Exhibition	Hall 3
11:20 – 11:40	Witness MOU signing between SCDF and DFES, MOI between AHA Centre and Shaw Foundation	Opal Room 1 and 2
11:40 – 12:45	Lunch reception	Garnett Room
12:45 – 13:00	Guests ushered into event hall	Hall 2
13:00 – 13:50	Commencement of SCDF Parade	Hall 2
13:50 – 14:40	Transition to SGFPC finals	Hall 2

««CONCEPT SCENARIOS»»

EXPERIENTIAL LEARNING

Studies suggest that experiential learning is significantly more effective as compared to classroom based training. It engages the senses and involves situations in which actions and circumstances lead to observable outcomes. Experiential learning encourages the learner to take ownership of the learning and is generally more rewarding.



1407 Panoramix Screen

WHAT IS ACTS?

ACTS is a training simulator that leverages on 3D virtual reality systems to immerse trainees in fire-fighting and rescue scenarios. It bridges the gap between classroom lectures and field exercises by boosting trainee participation, thinking skills and confidence.

EMBRACING TRANSFORMATION

In 2012, the Civil Defence Academy introduced the Advanced Command and Training System (ACTS) to motivate and encourage experiential, experimental learning where possible.



Sector Commander's Console

TRAINING APPROACH REVOLUTIONISED

With the introduction of the technology-driven simulation system, the need for navigation, role playing and table-top exercises is replaced by realistic audio-visual stimuli. Trainees are free to explore the incident site for themselves, make their own decisions and observe the outcome of those decisions with minimal intervention from instructors.



Automatic Assessment

RESIDENTIAL

Based on the actual structure of a typical Housing Development Board (HDB) apartment block, this multi-story model supports the simulation of common residential fires.



Residential Physics Modeling

COMMERCIAL

This virtual commercial complex consists of a shopping mall and a high-rise office tower. Its labyrinth of shops and its high occupancy load presents some of the most challenging scenarios.



Large Visual Wall

INDUSTRIAL

Consisting of a warehouse and factory complex, these industrial building models can re-enact actual industrial fires that occurred in Singapore. The high-voltage electrical appliances and flammable liquids involved require trainees to explore the use of alternative extinguishing media such as dry powder and foam.



Interactive Management Console

BENEFITS

- Given the fact that simulation exercises can be conducted in a risk-free environment without significantly expending resources, trainees are emboldened to formulate new strategies and experiment with various equipment and tactics. This same system allows instructors to design unique scenarios that bring across specific learning points.

FEATURES

- Single and multi player exercises
- Intuitive graphical user interface
- Integrated voice communications system to simulate radio comms
- Full-view playback of instructor's helicopter view and trainee's perspective for after action review
- Automatic grading of trainees' performance based on mission objectives

REALISM

The value and appeal of ACTS really lies in its realism. The built-in physics engine makes fire, smoke and hazardous materials etc. behave realistically. There is also provision to track consumption of resources such as equipment and extinguishing medium as well as healthy fatigue levels of crew members.

TAILOR-MADE

Simulated scenarios in the system are based on actual buildings in Singapore. All models and drills are tailored according to the uniform, appliances, Incident Command Structure and Standard Operating Procedures of SCDF.

CDA @ MANDAI

This new training site is to complement the Civil Defence Academy's current facilities. Standing on eight hectares of land, CDA@Mandai will be equipped with state-of-the-art simulators. CDA @ Mandai provides a platform for a more comprehensive and progressive training, covering a wide spectrum of fire-fighting, search and rescue operations, tactics and techniques, scenario-based and command and control trainings.

CDA@Mandai is part of the Home Team Tactical Centre which also has the Police training facilities co-located at this site. This will allow more combined exercises to be conducted between the two Home Team agencies, further enhancing the operational synergy and understanding.

1. Urban Search and Rescue Training Facility

Consisting of one central building and five other training blocks, the USAR training facility provides realistic and progressive training. Each of the training blocks is able to simulate an array of scenarios with specific areas within the blocks concentrating on casualty rescue, extrication and evacuation.

A collapsed building incident which results in a complex confined space rescue and an industrial accident requiring depth or water rescue are some of the operational scenarios which the facility is able to simulate amongst many others. In addition, there is a dedicated building which is specially designed to train our rescue dogs.



2. Ship Fire Fighting Training Facility

The Ship Fire-fighting training facility comprises of a purpose built simulator which is a realistic replication of a ship's internal structures and compartments. In total, the simulator consists of four decks with 10 separate compartments for fire-fighting training. For added realism, a 9 metre deep pool is also integrated within the simulator's construction.

An engine room fire due to a fuel leak and a cargo hold fire involving the storage that the ship is transporting is some of the operational scenarios which can be simulated.



3. Chemical Hub Training Facility

Designed to stretch the capabilities of responders, the Chemical Hub training facility will feature simulators for advanced fire-fighting and specialised HazMat skills training. These include simulators which are able to provide a variety of fire sizes and intensities. In addition, multiple fire and HazMat simulations can also be executed at different locations at multiple floors.

The facility, which is also designed to replicate a chemical process plant, provides realistic operational fire-fighting and HazMat incidents in confined working conditions. Additionally, responders will be trained in large-scale incidents which require the control, containment and containment of toxic industrial chemicals through sealing and plugging as well as transferring unaffected chemicals.



WELCOME REMARKS BY MR ERIC YAP

**COMMISSIONER SCDF AT CRISIS MANAGEMENT CONFERENCE 2016
11 NOVEMBER 2016, AT THE SINGAPORE EXPO, MAX ATRIA, LEVEL 2,
PERIDOT ROOMS 202-203**

Senior Minister of State for Home Affairs and National Development, Mr Desmond Lee,
Distinguished Delegates from the Network for Crisis Management,
Ladies and Gentlemen,
Good morning,

Let me first extend a warm welcome to all our foreign guests to Singapore and the annual Crisis Management Conference 2016 which the Singapore Civil Defence Force, or SCDF, is proud to host.

We are privileged to be your host this year and equally excited to be hosting the Conference in conjunction with the SCDF Ready Week. The Ready Week comprises a week-long of events that foster strong networks and interoperability with emergency management organisations within and beyond the Asia Pacific region. For example, we are engaging several international search and rescue teams through workshops this week such as the International Elite Rescuers Exchange (IERE) workshop, which is supported by UN INSARAG, and the inaugural United Nations Urban Search and Rescue Coordination Cell (UCC) Course. Both these events are ongoing at the Civil Defence Academy.

Tomorrow, the finals of the Singapore-Global Firefighters and Paramedics Challenge, or SGFPC for short, will take centre stage. The SGFPC brings together rescue teams from different cities competing in games that are designed to involve speed, strength, and more importantly, teamwork. We hope that all of you can attend the SGFPC tomorrow to lend your support to the teams participating in the games. This year, we have a record participation of 20 teams from 16 cities globally.

As part of tomorrow's programme, the SCDF will also be holding our annual Parade. The SCDF Parade is an important event for the Force as it brings together all elements of the organisation in full regalia celebrating our identity and achievements. And for members of the public to get up close to the SCDF, we have the "Life Savers Connect" exhibition that runs from today through to Sunday. The "Life Savers Connect" encourages visitors to become Community First Responders through activities that equip visitors with essential emergency preparedness knowledge, as well as basic competencies in firefighting, CPR-AED and first aid.

Like the other events in the Ready Week, the Crisis Management Conference is also an event that we look forward to host. This conference is an excellent opportunity for emergency management organisations from different member cities in the Network for Crisis Management to foster relationships and share knowledge and experiences on emergency and disaster management.

It is important for cities to learn from each other as new ideas can help us to formulate plans that can improve the operational capabilities in managing disasters and emergency situations. This is why we have chosen "Transformation and Innovation in Emergency Management" as the theme for the Crisis Management Conference 2016.

The SCDF has undergone several transformative stages since we were established in 1989. In 2013, we developed the Transformation Vision 2025 to align and prepare the organisation to face the challenges in the future. At the core of this 2025 vision is the role the community can play in an emergency.

To “Build a Nation of Lifesavers”, we are incorporating community first response as part of our emergency response. The concept of community first response is energised through leveraging new technologies and innovation and at the same time, empowering the community to respond in an emergency by equipping them with essential lifesaving skills. We will share this journey in our presentation entitled “Leveraging on Technology & Innovation to Build a Lean and Effective Organisation”.

I look forward to all the presentations by the member cities. I am glad to know that there is an array of topics that will be covered in the conference ranging from the use of technology and new systems to enhance training of rescue teams and disaster risk reduction plans in cities, to innovative ways in engaging volunteers and the community to enhance public preparedness and coordination.

With these presentations, I am sure that it will put us in good stead to collectively navigate challenges ahead. I am equally confident that today’s conference will also foster stronger networks and open new doors of opportunities to further enhance our emergency management efforts.

On that note, let me wish everyone an enjoyable conference ahead and a pleasant stay in Singapore. Thank you.

**OPENING ADDRESS BY MR DESMOND LEE
SENIOR MINISTER OF STATE (MINISTRY OF HOME AFFAIRS AND MINISTRY
OF NATIONAL DEVELOPMENT) AT THE CRISIS MANAGEMENT
CONFERENCE 2016, SINGAPORE EXPO, PERIDOT ROOMS 202-203**

Commissioner Eric Yap
Distinguished Delegates
Ladies and Gentlemen,

Good morning,

Singapore is honoured to host this event as part of SCDF Ready Week. I wish to thank the Tokyo Metropolitan Government for helping Singapore in the planning and organising of CMC 2016.

Today, over half of the world lives in cities. This is expected to reach 60% by 2030. Modern cities are ecosystems of complex interdependent systems that deliver energy, water, food, traffic, healthcare, sanitation and environmental monitoring services. Disruptions, man-made or natural, can cripple our way of life. This has led to new challenges in emergency management.

Disaster and emergency management agencies must therefore continuously transform and innovate to keep up with these challenges, in order to maintain their operational edge. Effective emergency management requires the coordinated efforts of every segment of society, from government agencies, NGOs, private sector organisations down to every individual. Disaster management is not just about how well emergency agencies respond to the crisis but more importantly, about how well the community bounces back. It requires a Whole-of-Society effort, and the disaster response community plays an important role in this area.

Singapore is fortunate to be spared from natural disasters. However, we are densely populated, with the majority of our population living and working in high-rise buildings. We also have petrochemical industries located not too far away from residential areas. Any mishap in such a densely-built environment can have serious consequences for life and property if we do not have an effective emergency management strategy. Emergency management in Singapore is based on doing three key things well:

- Operational Excellence,
- Civil Protection and
- Community Preparedness.

To push for Operational Excellence, the Ministry of Home Affairs (MHA) has been deploying new technologies to improve our response capabilities. For example, the Singapore Civil Defence Force and the Singapore Police Force have in recent years employed simulation technology in our training curriculum to enhance the capabilities of our officers. The SCDF also works with innovative companies to develop new emergency vehicles that are suited to Singapore's operating terrain. These include the latest 5th Generation Light Fire Attack Vehicle (LFAV) as well as the HazMat Control Vehicle. You would have seen some of these innovations at the Home Team Tactical Centre, which most of our international guests visited yesterday.

In any emergency response, we are only as good as the officers at the frontlines. Hence, MHA has invested heavily in research and test capabilities that would enable us to optimise the operations and training capabilities of frontline responders. Last month, MHA launched the Human Performance Centre (HPC), which is a key milestone in our transformational journey. This centre aims to develop cutting edge technologies to meet challenges such as declining manpower and increasing operational demands. To maximise and enhance the capability of every individual, the centre will focus on institutionalising Human Factors in areas such as smart surveillance capabilities, Virtual Reality for training and operations, human centricity for network-enabled operations as well as studies into responder fatigue and vigilance.

Let me move onto the next area, which is civil protection. A key tenet of effective civil protection is early detection and warning to the community so that they can also take effective steps to protect themselves from harm. MHA has been exploring the capability to do localised public alerts, as part of building a multi-channel, multi-platform emergency broadcast ecosystem to reach out to members of public during emergencies. There are other countries with similar emergency alert systems in place, such as the US, Europe, Australia, Korea and Japan, just to name a few. We have been studying some of these systems and learning from their experience.

Last month, we launched an SMS-based public alert system. This system allows us to send localised alerts, via Short Messages, to the public in the vicinity of an emergency, and to provide them with instructions if necessary. It builds on many other channels and platforms that we already use to engage and communicate with the public on a nationwide level.

We have also developed the SGSecure mobile application as part of our counter-terrorism strategy, that allows us to send location-based alerts to users who have downloaded this app. More than that, it also allows us to tap on the power of crowdsourcing by letting users 'point, shoot and send' visuals and other information from the scene of a disaster to the authorities. This helps us in sense-making and allows us to match the resources according to the magnitude of the incident.

The SCDF has also successfully tapped the potential of crowdsourcing to save lives. Since the launch of the myResponder mobile app in April last year, there have been over 26,000 downloads. There have also been about 1,200 cases where members of public were mobilised through the app to render assistance before the professionals arrived. In one example early this year, a community first responder was activated through the app and managed to save the life of jogger who had suffered a cardiac arrest. After the jogger recovered, he also registered himself as a Community First Responder!

This brings me to the last point, which is about building Community Preparedness as an integral part of effective disaster management. I spoke earlier about the need to build social resilience in the population, and one way of doing so is to organise and involve the community as part of the response during an incident. In times of emergencies, those who are at the scene are really best placed to respond and potentially keep the situation contained. This also fosters a culture of active self-help, which is part of building resilient societies.

One success story in Singapore is the introduction of the Company Emergency Response Team (CERT) framework in 2005 as part of SCDF's fire safety regulations. CERT is a

trained team of in-house personnel tasked with managing emergencies at the initial stage of an incident before authorities arrive. This concept has grown from strength to strength since, with CERTs proving to be highly effective in bringing emergencies under control at an early stage. For example in February this year, two ISO tanks caught fire at a chemical plant. The plant's CERT deployed two large foam jets from their in-house fire engine and extinguished the fire before the arrival of SCDF. The swift actions of the CERT ensured that the incident was mitigated effectively with minimal damage to property. The CERT concept has since inspired variants of the programme that cover industries, commercial premises and community heartlands.

Another driver of building community self-help is SCDF's long-standing partnership with the National Fire and Civil Emergency Preparedness Council, which has spanned over 30 years. This partnership has promoted a fire safe environment in Singapore and an emergency prepared community through outreach and awareness programmes to residences, schools, industrial and commercial sectors.

Comprising both public and private sector members, the National Fire and Civil Emergency Preparedness Council continues to play a vital role in engaging, educating and instilling self-reliance and preparedness in the community for emergencies.

The emergency management profession is a vital one. That is why seminars such as this are so important to build our networks as well as to share experiences and best practices, and there is so much that all our participants can bring to the discussion. I would like to thank all the speakers in advance for agreeing to share your expertise with the audience. I hope that the presentations today will provide everyone a good learning opportunity. Let me wish everyone a very fruitful conference, and let us continue to push ahead in our profession of making our cities safer and more secure.

**CHAIRPERSON'S SUMMARY BY MR ERIC YAP
COMMISSIONER SCDF AT CRISIS MANAGEMENT CONFERENCE 2016
11 NOVEMBER 2016, AT THE SINGAPORE EXPO, MAX ATRIA, LEVEL 2,
PERIDOT ROOMS 202-203**

Ladies and Gentlemen,

Thank you very much. First of all, my heartiest congratulations to Deputy Commissioner Kim from Seoul Fire Department for hosting the next Crisis Management Conference. We certainly look forward to the meeting in Seoul and learn from the experiences of various participating cities in terms of crisis management and disaster management.

I think today's conference has been enriching and intense, particularly having to sit through ten presentations within a day. I'm actually a course participant at the moment at the Civil Service College of Singapore. As we have accepted the invitation to host this conference a year ago, I took myself out of the course to attend this event. The topics discussed today have been diverse, but all are related to crisis and disaster management. The topics range from innovation strategies, lessons learnt to using of future technology to enhance training.

After sitting through all the presentations, I took away four key points, and I think some of these points may resonate with you. "Community Self-Help" and "Mutual Assistance" are the first two points that resonate with me. I can see these points reflected in the Singapore's presentation about how we're going to embrace the concept of a Nation of Life Savers for our vision of 2025. Dr. Subejo has also talked about how Jakarta need to train the local community and the efforts to provide equipment to the community so that they can render immediate aid to each other.

We have also heard from Tokyo Police Department about language and student volunteers. The concept of self-help came through very strongly. I think that the fact is that we are all in the business of crisis response. We deal with emergencies in our day-to-day lives and we know that from the time we receive a call, we are already fighting against time. Some emergency response organisations, like SCDF, require eight minutes to respond to the scene. Some agencies may take 15 minutes. If you are in Jakarta, with the traffic condition, I think it is going to be a challenge. Therefore, community self-help and mutual assistance are critical and can never be overstated.

The third point that resonated with me through the presentations is "Training to be prepared". Let me elaborate this point further. Exercises are one of the ways for organisations to be prepared. In London Fire Brigade's presentation, they shared how Exercise Unified Response took more than two years to plan and eventually when it was conducted, it involved multi agencies and international teams responding together. The conduct of a joint exercise of such scale is definitely elaborate but the lessons learnt and recommendations provided post-exercise are definitely worth the effort. I think that is the true value of an exercise, where systems can be improved if we take it that the end point of the exercise is the start point of many of the things that needs to be done.

New Taipei City spoke about overseas joint trainings in their presentation. I think this is something that means a lot for us because we firmly believe in training alongside foreign counterparts. Joint trainings can help to bring our skills and operations to a new level as our people can learn new methods and knowledge when we conduct training together.

My last point is about “embracing technology” and this is shown in the presentation on the Integrated Command Training Centre (ICTC) by Seoul. I think tapping on virtual reality for training is truly embracing technology. It pushes the boundaries to areas that we may have difficulties reaching if we rely on conventional methods. I spoke to Peter from London Fire Brigade over lunch that emergencies are dynamic in modern society and there are many constraints that countries like Singapore are facing. One of the biggest constraints that we face is the dwindling workforce. There is also a public demand for our workforce to deliver more. It is thus a constraint for us when an emergency situation occurs. This is the time when technology, such as virtual reality technology, can offer us.

Yesterday some of us had the opportunity to visit the Civil Defence Academy and the Home Team Tactical Centre. That is the latest training institution that SCDF has jointly developed with our Police Force counterparts. The new centre at Mandai gives us the capacity to shift our training load to another base and hence enable us to redevelop the Civil Defence Academy, which you saw. The entire field training area of the Civil Defence Academy is actually underutilised by plot ratio. A lot of our training at Civil Defence Academy are actually interrupted by lightning activities. The plan is to build high rise structures and training facilities in each of these levels that offer virtual reality type of training and standard burning training to provide a more realistic training of our firefighters.

Our keynote speaker, Pak Said Faisal has shared in his presentation of the ASEAN response mechanism and the planning processes that goes into the SOP, the forward deployment bases where logistics can be placed so that in the event of crisis, the emergency stockpile can be pushed out very quickly to the situations. These are all known scenarios and unknown scenarios that we know so we can plan for it.

To conclude, I would like to say that I appreciate this opportunity to interact with the different cities that have come and spent time with us. Tomorrow will be a big day for us where we can see the finals of the Singapore Global Firefighters and Paramedics Challenge, and I invite every one of you to come and witness the event. It is electrifying, the atmosphere, if you talk to Pak Said Faisal he will tell you, he is coming back here for the 3rd year and each year he says he sees something new and this is truly what it is and it can happen this way because all of us belongs to one fraternity, you know, and this is the Emergency Response fraternity. We believe in a mission of making sure that the people who are in distress gets the best service possible.

So on this note, I thank you for your presence here for the whole of today and of course for the past day and for the next day as well. After this event, we will have a dinner and following the dinner I hope that there will be some time for you to catch some glimpses of Singapore skyline. I wish you a very good evening ahead. Thank you.