OVERSEAS SEARCH AND RESCUE OPERATIONS
Singapore Civil Defence Force

Workshop on Large-Scale Disaster Recovery in APEC
22 - 25 Sep 2008

LTC Francis Ng
Commander
CD 4th Division
Scope

- SCDF USAR Response System
- OPS Lionheart (Sichuan Earthquake)
USAR Overseas Response System

Operations Lionheart
• To provide international assistance in the conduct of rescue operations in the event of a disaster, both naturally or man-made within the Asian-Pacific region.
Contingent formed in accordance to International Search & Rescue Advisory Group (INSARAG) Guidelines
Contingent Commander

Contingent HQ
- Operations Officer (Div)
- Media Officer (PAD)
- Comms Officer (Div)

Medical Team
- Medical Officer

Service Team
- Base Manager / Logistics Officer (HQ)

Rescue Unit
- Rescue Plt Comd
- Rescue Sect 1 (1SC + 5 Specialists + 1FRS)

Advance Team (13)

Rescue Unit Comd
- DY Rescue Plt Comd
- Rescue Sect 2 (1SC + 5 Specialists + 1FRS)

1st Phase (22)
- Operations Officer / Safety Officer (HQ)
- Rescue Engineer
- 2 Comms Officer (HQ)

Rescue Sect 1
- 1SC + 5 Specialists + 1FRS
- 2 Search Dogs

2nd Phase (20)
- Media Officer (PAD)
- Rescue Engineer
- Rescue Sect 2
- Rescue Sect 3
- Rescue Sect 4

Manpower = 55
All Rescue Specialists multitasks as Search & Rigging Specialists, and relief crew

* Comms Officers could be deployed to setup RDC
Team Capability

- Expertise in Search & Rescue & Medical
- Self sufficient for 14 days
- Activate another Reserve Contingent if beyond 14 days
Respond with 3 vehicles
- 2 x Rescue Vehicles
- 1 x large lorry

Pre-packed logistical supplies comprises...
Readiness

- Rescuer full pack equipped with:
  - Personal toiletries
  - Sleeping bag
  - Thermal jacket
  - Eating Utensils
  - Extra Clothing
Phases of Response

- The Contingent is on standby at all times
- Arrive at the airport of departure within 8 hrs (INSARAG Guidelines)
- Transportation by Military aircrafts
12 May 2008 - Earthquake
Sichuan, China

26 Dec 2004 - Tsunami
Aceh, Indonesia & Khao Lak, Thailand

21 Sep 1999 - Earthquake
Tai Chung County, Taiwan

11 Dec 1993 - Bldg Collapse
KL, Malaysia

18 Aug 2005 - Bush Fires
Sumatra, Indonesia

27 May 2006 - Earthquake
Central Java, Indonesia

8 Oct 2005 - Earthquake
Muzaffarabad, Pakistan

28 Mar 2005 - Earthquake
Nias Island, Indonesia

16 Jul 1990 - Earthquake
Baguio City, Philippines
OPERATIONS LIONHEART
SIChUAN EARTHQUAKE

16-22 MAY 08

Epicentre
8.0-magnitude earthquake

Wenchuan
Chengdu

SICHUAN

The Life Saving Force
ACTIVATION AND MOBILISATION

Manpower: 55-men contingent

Resources:

- 2 x Dart Rescue Vehicle
- 1 x 5-tonner
- 4 x Canines

Arrived at Chengdu at 7.25pm
Enroute to Shifang County & Hong Bai Town

Time Description
16th May 08
2135hrs Vehicle convoy proceeded to Shifang County

<table>
<thead>
<tr>
<th>Time</th>
<th>Description</th>
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<tbody>
<tr>
<td>17th May 08</td>
<td></td>
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<tr>
<td>0000hrs</td>
<td>Briefing by Ms Lei Tao Vice-Mayor Shifang County, Sichuan</td>
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<tr>
<td>0100hrs</td>
<td>Replenished fuel &amp; rested</td>
</tr>
<tr>
<td>0400hrs</td>
<td>Proceed to Hong Bai Town</td>
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<tr>
<td>0615hrs</td>
<td>Arrived at Hong Bai Town</td>
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</tbody>
</table>
Enroute To Hong Bai Town

Epicentre

Deployment to Hong Bai Town
17th May 08, 0615hrs

Shifang County
17th May 08, 0000hrs

Chengdu, Shuang Liu Airport
1925hrs, 16th May 08
Area of Operations (Hong Bai Town)

Hong Bai Town
Accessible by 2 ways,
- 100-metre long land-bridge over a river or
- through the mountain road

Collapsed of land-bridge
- Access to the town only on 2nd day by parachutes
- Road access only possible on the 4th day after the quake

The Life Saving Force
Area of Operations (Hong Bai Town)

Hong Bai Town
- Population size of about 8000
- 4th largest phosphorus and coal mining town in China
- Buildings mostly 4 to 6 storey high
- Mixture of shop houses, residential and school buildings
- Surrounded by mountainous region
Area of Operations (Hong Bai Town)
Local Emergency & Management Authority

- Rescue and Relief Centre
  - Mr Jiang Ming Zhong, Vice-Mayor Shen Fang County
  - Mr Pu Chao Yong, Vice-Secretary Shen Fang County
- Attached to Base Camp
  - Mr Sun Xiang Yang, Director, Beijing, China MFA
  - Mr Yang Xin Hong, China International SAR (CISAR)
  - Mr Xie Yi, Translator, Sichuan Foreign Affairs Office
Setting Up of Base Camp

Base of Operations (BoO)
DEPLOYMENT

17th May 08
Day 1

The Life Saving Force
Activity
- Collapsed shop house
- Suspected 3 people were trapped in the basement.
- Owner confirmed that everyone had escaped and nobody was trapped
Time | Activity
---|---
1934hrs | Discover first body (Deceased, Mdm Li Shu Jun, 51 yrs old)  
After descriptions from NOK (husband)  
Extricated within 45mins using a Hydraulic Spreader from a pile of rubbles.

2100hrs | Deployed 2 polyma lighting units  
Appeal from a daughter to search for her 61 year old mother’s body  
Chinese military troops discovered a half buried female at another area  
SCDF’s assistance was sought to extricate the body

2120hrs | Extricated within 20 mins
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>2310hrs</td>
<td>Discovered the body (deceased) of 61 year old mother</td>
</tr>
<tr>
<td>2330hrs</td>
<td>Extricated the 3rd body</td>
</tr>
<tr>
<td>18 May 2008</td>
<td>Night Operations ceased</td>
</tr>
</tbody>
</table>
Activity
• Search for a missing female Chinese.
• Suspected to be trapped at 2nd storey of a partially collapsed 5 storey building.
• Discovery of body, female Chinese
• Body fully extricated.
• Search team carried the body to the burial ground, approximately 100m south of BoO.
The Life Saving Force

DEPLOYMENT

18th May 08
Day 2
# Deployment

## 18th May 08

**D**ay **2**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
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<tbody>
<tr>
<td>1450hrs</td>
<td>Approached by a work supervisor</td>
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<tr>
<td>1600hrs</td>
<td>Male Chinese (deceased), 5&lt;sup&gt;th&lt;/sup&gt; body discovered at Ops 13</td>
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<tr>
<td>1630hrs</td>
<td>Extricated from a pile of rubble which used to be a 6-storey apartment.</td>
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<tr>
<td>Time</td>
<td>Activity</td>
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<tr>
<td>0825hrs</td>
<td>Organization of search team and 2 vehicles</td>
</tr>
<tr>
<td>0840hrs</td>
<td>Arrived at Shi Zhi Ping Shi</td>
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<tr>
<td></td>
<td>Informed that all personnel accounted for</td>
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<tr>
<td>0900hrs</td>
<td>Return to base</td>
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<tr>
<td>Time</td>
<td>Activity</td>
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<tr>
<td>0925hrs</td>
<td>Contingent re-org and revised equipment list</td>
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<td>1024hrs</td>
<td>Arrived at a valley approx. 6km from BoO</td>
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<td>Massive landslide</td>
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<td>• Piled to about 10m deep</td>
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<td></td>
<td>• Low rise factory buried</td>
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<td>• Hydro-electric dam partially damaged</td>
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<td>• Access road flooded to approx. 5m.</td>
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DEPLOYMENT
As a mark of respect for the deceased caused by the quake, the Contingent, together with the people in China, observed 3 minutes of silence @ 1428hrs
Time | Activity
--- | ---
0800hrs | Meet with LEMA

Discussion

- Mountainous area (potential area of Ops)
  - Entertainment Resort (Western Wonder & Happy Valley)
  - Suspected casualties trapped
  - 18km away
  - Inaccessible by vehicle due to landslides
  - 3 days to and fro (by foot)
- Helicopter assistance needed

1745hrs | Standby manpower and equipment at BoO
DEPLOYMENT

• Debrief with Local Emergency Management Authority (LEMA)
  • Update on situation at mountainous region
  • Emphasis on safety of rescuers
  • Transition to recovery phase.
Recovery

• The local citizens could be seen returning to Hong Bai Town to recover their items.
DEMobilisation

21st May 08
Day 5

The Life Saving Force
Good Cooperations
Emotional and Psychological Closures
Humanitarian Aids

- Medical team (1 doctor and 3 paramedics)
  - Provided first aid treatment to the locals.
  - Cleanliness of base camp
  - Collection of disinfectants

- Rescue Engineers
  - Assessment of structural stability