The Mobilization and Operation of Taipei Urban Search & Rescue Team

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Outline

- Background
- Capabilities and Structure
- Equipment
- Mobilization Procedure
- Performance
- Lessons Learned
- Future Plan
Background

- Motivated from the Chi-Chi earthquake in 1999.
- Immediate need of disaster preparedness & response.
- 2000, the Taipei City Urban Search & Rescue Team were established under the expectation and support from the public.
Capabilities

Qualification of members

- Firefighters
  - Received Life Saving Training & EMTII Training
- Medical specialists
  - A licensed doctor
- Technical specialists
  - The licenses of construction, architecture, and electric machinery

All members have at least 2-year field experiences and have passed the urban S&R training given by the FEMA, USA.
Taipei Fire Department

Role

- Searching, rescuing and providing first aid to people trapped in rubbles resulted from natural or man-made disasters including:
  - Structure collapse.
  - Landslide/Mudslide
  - Flood
  - High angle rescue.
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Capabilities

- Physical search and rescue operations in damaged/collapsed structures
- First aid to disaster response personnel and victims of the disaster
- First aid to the injured
- Assessment of damaged houses and buildings
- Stabilization of damaged structures, including shoring and cribbing damaged buildings
- Water rescue
Equipment

Life detector
Equipment

• Search cam

• K-9
Equipment

Shoring and breaking equipments
Mobilization Procedure

- Alert Phase
- Activation Phase
- Deployment Phase
- Operations Phase

EVENT

Alert \rightarrow Activation \rightarrow Deployment

After-Action \rightarrow Re-deployment \rightarrow Operations

Reconstitute

The Response System
Taipei Fire Department

**Timing & deployment sequence**

1. **Alert Notification**
   - Members are notified of possible deployment

2. **Activation Order**
   - Members have to arrive at assembly point within 1 hour

3. **Assembly**
   - To conduct preparation for deployment at assembly point

4. **Deployment Order**
   - TF has 4 hours from receiving orders to deployment

5. **Deployment**
   - Transportation on the ground or in the air

6. **Conduct Operation**
   - TF will be self-sufficient for 10 days and to remain operating for a maximum of 14 days

The sequence takes place over a period of 1 hour and 4 hours as indicated.
El Salvador Earthquake

- 11:33am, January 13th 2001
- 7.6 on the Richter scale
- 70 deaths, more than hundred injured, 1200 people missing, and several thousands of houses collapsed
Immediate response

- 30 personnel including 27 firefighters, 2 doctors and 1 engineer with sufficient equipments
- The total traveling time from Taipei to Salvador was 24.5 hours, which was 45.5 hours after earthquake
S&R performance – 1

- **STEP1**: report to local command center
  - Register at local authority, acquire sufficient information.
- **STEP2**: move to affected area and initiate operation immediately
  - Start search and rescue operation immediately with essential equipment.
- **STEP3**: set up a safe basement
  - Select a suitable location set up a safe basement to provide 24 hours operation.
- **STEP4**: Search and Rescue
  - Keep conducting search and rescue.
S&R performance – 1
S&R performance – 2

- **Taipei Earthquake**
  - 02:53 pm on 31 March 2002
  - 6.8 on the Richter Scale
  - ‘Basin Effect’ in Taipei
S&R performance – 2
Rescue out a 16-year-old girl at 17.00
Rescue out a 18-year-old man at 17.14
Rescue out a 9-year-old girl at 17.12
Rescue out a 9-year-old girl at 17.47
Rescue out a 44-year-old woman at 17.00
Rescue out a 6-year-old boy at 16.01
Rescue out a 12-year-old girl at 15.43
S&R performance – 2
Taipei Fire Department

Performance – 3

- Bam Earthquake
  - 05:28 am, 26 December 2003
  - 6.3 on the Richter Scale
  - 20,000 people were reported to have been killed and the number was increasing
Performance – 3

- Immediate response

- The team combined 40 personnel of the Taipei Urban Search & Rescue Team
Performance – 3

- **Search & rescue**
  - Conducted rescue tasks immediately
  - Set up a safe and well-functioned base
  - Coordinated with the OSOCC
Performance – 3

- Search & rescue
Performance – 3

- Search & rescue
Wenchuan Earthquake
- 14:28, 12 May 2008
- 8.3 on the Richter Magnitude Scale
- Over 70,000 people were killed and over 370,000 were injured.
Performance – 4

- **Response Steps**
  - Gathering information and rounding up members.
  - Mobilization Capacity:
    - Personnel:

  ![Diagram of organizational structure]

  The personnel composed of Taipei City Urban S&R and The Red Cross Society.
Performance – 4

✓ Equipment
  • Necessary Equipment
  • Medicine
  • Food and Water
  • Toted over 3,000 Kg
Transportation and Communication

- Direct flight from Taipei to Chengdu took 3 to 4 hours.
- The Red Cross Society was responsible for communication and provided local transportation.
Search and Rescue

- Search and rescue areas: Hanwang, Mianzhu.
- Searched and rescued for 4 days.
- Coordinated with local rescue teams.
- Have Searched 15 dead bodies and saved two dogs from ruins.
Performance – 4
Lessons Learned

- International mutual supporting agreement
  1. Communication system
  2. Direct flight
  3. Valid Visa
  4. Immigration authorized only
  5. Logistic support
- International recognized rescue sign
- Rescue only flight/airplane
- Regular International rescuing workshop including drill, seminar or practice
Future plan

- To combine private and voluntary forces to engage in disaster preparedness.
- To improve international experience sharing in order to enhance search and rescue skills.
- To participate in international S&R organizations actively to show our willingness to contribute to the global society.
THANKS FOR YOUR ATTENTION