Urban Search and Rescue Response Capacities of Official Search and Rescue Teams in Turkey and the Netherlands

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Agenda

- Rationale and Scope
- Literature Review
  - Previous Research
- Methodology
- Results and Analyses
  - The Netherlands
  - Turkey
- Conclusion and Recommendations
- Future Research
- Discussion / Q&A
Rationale:

- Significant increase in events that might cause structural collapse and/or entrapment (EM-DAT 2007)
- United Nations GA Res. 57/150
- National and International focus on Disaster Response Preparedness
Literature Review
Definitions used:

- “Locating, reaching, (medically) treating, and safely extricating deeply entombed survivors of collapsed structures”

- “…distinguishes from other emergency rescue entities by its unique capability to overcome the impediments caused by steel, reinforced concrete and other heavy construction to locate victims and effect rescue” 
  
  *(Barbera and Macintyre 1996)*

- an international USAR team is “an asset from the affected country or from the international community that respond to carry out search and rescue activities in collapsed structures”

  *(INSARAG 2008)*
Effective and Efficient International Coordination:

• Important issues:
  • Time
  • Management
  • Communication
  • Media
  • Resources/Technology/Capacity
  • Knowledge/Understanding
  • Situational/Disaster Dynamics

Literature Review

Source: Adapted from Morris, et al. Amsterdam 2007
INSARAG External Classification

• INSARAG External Classification System defines the USAR Team capacity:
  • Light
  • Medium
  • Heavy

• The IEC concept is now used and having a positive effect as it provides an independent, non-biased, peer review of the USAR team’s classification.
Literature Review

International Coordination:

• Political Environment:
  • United Nations: UN GA Resolutions (46/181, 57/150)
  • INSARAG Guidelines and Methodology 2006
  • National Political Disaster Preparedness and Response Structures
Previous Research (International USAR System)
Methodology

• Qualitative analytical approach utilising the experience and knowledge of those studied, and the researchers, in the area of USAR systems

• Comparative case study research to outline similarities in preparedness and response structures in the Netherlands and Turkey

• As a basis the research uses the framework of the INSARAG guidelines and methodologies
INSARAG Methodology
Established in 2003 as a response to not being able to deliver specialist assistance in the Marmara earthquake in Turkey 1999 and nationally to the Fireworks disaster in Enschede 2001

Response Structure:
USAR.NL

• Organisational Structure:

USAR.NL Command

- Commander
- Deputy Commander

Experts (optional)

USAR.NL Staff
- Staff Commander
- Liaison
- Information Officer
- Admin

Optional Group

Search and Rescue Group D

Search and Rescue Group C

Search and Rescue Group B

Search and Rescue Group A
- Commander Search and Rescue Group
- Rescue Member / Technical Search
- Specialist
- Rescue Member / Canine Supervisor
- Rescue Member
- Nurse

USAR.NL Support
- Commander Support group
- Doctor
- Head Nurse
- Safety Officer
- Security Officer
- Building Expert
- Technician
- ICT Technician
- Transport and Logistics Member
- Cook
• INSARAG Membership in 2003
• Accredited by the IEC in 2007 as a “Heavy” Team
• International USAR operations:
  • Morocco (2004)
  • Pakistan (2005)
Turkish Civil Defence

- After 1999 the structure was revised emphasizing on USAR
- Adaptation of capacity for international deployments
- INSARAG Membership in 1999
- Currently not IEC accredited
- International USAR operations:
  - Greece (1999)
  - Taiwan (1999)
  - El Salvador (2001)
  - India (2001)
  - Algeria (2003)
  - Iran (2003)
  - Pakistan (2005)
Turkish Civil Defence

Diagram:

Ministry of the Interior

The Governorship

Search and Rescue Teams
City Civil Defense Directorate
District Directorate

Local Management

Public and Private Civil Defense Organizations
Emergency Rescue and Help Teams
City and District Civil Defense Constitutions and Protection Guidances

Civil Defense Search and Rescue Unit Directorates
Conclusions

• **Turkey and The Netherlands**
  - Both face a challenge to develop their capabilities to support field level coordination (when deployed)
  - The Netherlands use the Virtual On-Site Operations and Coordination Center more actively while Turkey prefers other means of information management
  - Turkey faces a challenge in keeping themselves updated with INSARAG training, exercises and meetings although the Netherlands is more involved in these activities
  - Turkey has more experience both to receive and give international USAR assistance whereas the Netherlands has the experience to give international USAR assistance
  - The Netherlands are already classified as a “heavy” team whilst Turkey did not go through this process yet.
Recommendations

- More countries adhering to the INSARAG (international) guidelines would result in increased efficient use of international USAR assistance where needed.
- USAR response team capabilities (specialist) should be mapped incl. cooperative international training and exercises through National Focal Points within the Government.
- Increase international cooperation and enhance understanding.
- Countries should be prepared for incoming international (USAR) assistance and therefore explore (partially) integration of the mechanisms to assist incoming international (USAR) teams.
Areas for future Research

- **Effectiveness and Efficiency in Disaster Management**
  - Instrument/Tool development for effective and efficient preparedness and response mechanisms such as USAR based on e.g.
    - Risk analysis and Cost-benefit-analysis (CBA)
    - Risk Governance vs. Risk Insurance
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