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Committee Civil Defence and Emergency Management
Author Dr Roger Blakeley, Chairperson, Co-ordinating
Executive Group

Exercise Capital Quake '06

1. Purpose

To inform the Wellington Region Civil Defence Emergency Management Group (CDEM Group) about the outcome of and lessons learned from *Exercise Capital Quake '06*, an exercise that took place to test New Zealand's all-of-nation arrangements for responding to a major disaster resulting from an earthquake in Wellington.

2. Background

A major national disaster preparedness exercise was held on 14 and 15 November 2006. *Exercise Capital Quake '06* was an all-of-nation earthquake simulation exercise which focused on key agency arrangements at local and national levels. Approximately 1,000 participants from more than 50 organisations were directly involved, including local and central government agencies and private companies, making it one of the largest exercises ever held in New Zealand.

The exercise was jointly led by the Wellington Civil Defence Emergency Management (CDEM) Group and the Ministry of Civil Defence and Emergency Management (MCDEM). The planning for and delivery of the exercise was co-ordinated by the Kestrel Group.

Preparation for Exercise Capital Quake involved a programme of activities undertaken principally over a five month period.

A National Exercise Working Group, comprising Mike O'Leary (MCDEM), Rian van Schalkwyk (Wellington CDEM Group), Pat Helm (Department of Prime Minister and Cabinet (DPMC)) and Kestrel Group representatives was established to provide oversight and direction of the exercise planning, and to develop the various scenario strands and monitor progress on preparatory activities.

A Working Group of key co-ordinating agencies (such as transport, welfare, health) was also formed to assist with exercise planning, both within those clusters/sectors and for the exercise overall. These agencies were tasked with establishing the extent to which their sector was to be exercised, and organising meetings of each cluster/sector as required. The Wellington CDEM Group was represented on this working group as the lead co-ordinating agency for local authorities and agencies.

Participating groups and organisations were invited to identify particular issues and tasks that they wished to exercise within the context of the scenario and exercise structure.

The timeline in the three months leading up to the exercise was framed around the delivery of information out to the participant groups. Briefing meetings were scheduled at the outset, and documentation deadlines set accordingly.

The participating agencies broadly encompassed the following:

- Government agencies with roles in respective plans relating to the functions to be exercised
- Wellington CDEM Group organisations (Greater Wellington Regional Council, Territorial Authorities, Emergency Services (including District Health Boards))
- Auckland, Manawatu-Wanganui, Marlborough and Canterbury CDEM Groups
- Other organisations involved in the delivery of the functions exercised

A United Nations Disaster Assessment Co-ordination (UNDAC) team comprising representatives from Australia and the Pacific Islands also participated in the exercise.

3. Aim and Objectives of the exercise

3.1 Aim

To test New Zealand's all-of-nation arrangements for responding to a major disaster resulting from an earthquake in Wellington.

3.2 Objectives

- ***Roles and responsibilities:*** understand, develop and practice the respective roles and responsibilities of local, regional and national agencies in response to the exercise scenario.
- ***Arrangements:*** embed the planning arrangements in standard processes for all participating agencies.
- ***Connections:*** confirm the connections between local, regional, national and international agencies.

3.3 Assumptions

The underpinning assumptions of the exercise were that it would be:

- a learning activity designed to educate agencies on *roles and responsibilities, arrangements and connections*.
- for all participating agencies to exercise according to their own arrangements and plans, and use the exercise to evaluate their response capability.
- co-ordinated at the regional and national level so that related issues are reflected and addressed at local, regional and national level.
- at national level based on the arrangements in the National CDEM Plan, and at local level based on the Wellington CDEM Group Plan.

3.4 Exercise conduct

Exercise Capital Quake '06 was based on a magnitude 7.6 earthquake on the Wellington fault. This scenario has been used a number of times in recent years for Project Phoenix exercises conducted by the Greater Wellington Regional Council in conjunction with MCDEM. The scenario impacts were taken largely from earthquake risk assessment work undertaken in 1994 by Works Consultancy Services for the Wellington Regional Council.

The six critical needs from the Wellington CDEM Group Plan, which had in turn been derived from previous Phoenix exercises, were used as the starting point (or 'event issues') for exercise planning. These community-based needs are:

- Treatment and movement of the injured
- Urban Search and Rescue
- Welfare
- Lifelines restoration
- Sanitation
- Health

From these, the following eleven functions were identified on which exercise processes were based:

1. Public Information Management
2. Governance
3. National Financial System
4. Logistics and Other Support Co-ordination
5. International Assistance and Liaison
6. Rescue
7. Health
8. Welfare

9. Building Safety
10. Restoration of Access
11. Restoration of Lifelines

Key sub-themes of *Access*, *Emergency Water* and *Fuel Supplies* were also used as a means of focusing the exercise development and delivery process.

4. Observations from the exercise

A report of the exercise was completed by the Kestrel Group and it is currently awaiting final approval from the Department of Prime Minister and Cabinet. The observations of the exercise listed below are those which umpires and evaluators supplied to the Kestrel Group.

- The exercise highlighted the significance of the impact of a magnitude 7.6 earthquake on Wellington and the rest of New Zealand.
- It demonstrated the importance of regular exercises to familiarise sectors and organisations with their Response and Business Continuity Plans, and to identify where further work and training is required to enhance these plans.
- The need for organisations to understand each other's roles and responsibilities and build on relationships and networks established prior to and during the exercise was acknowledged throughout the process.
- The management of competing demands was primarily driven by process rather than strategic forward planning at regional and national levels. While some activities at these levels moved to address the required solutions in the areas of health, transport and re-supply early on the second day, this was not communicated effectively.
- Some aspects of the exercise proved to be unrealistic with restricted communication available. In a real event it was acknowledged that communication would be much more of a constraint, and the use of Satellite phones, Radio Telephones and current contact lists essential.
- The different approaches to starting time assumptions adopted by various agencies caused confusion. However to a large extent this reflects reality, as it will not always be possible for local levels to provide national sectors/organisations with numbers and specific requirements as initial input to their response processes.
- The lack of resources within the region and access to them from other areas emphasised the importance of transportation and access. Urban Search and Rescue (USAR) teams were limited with their response, being unable to bring people or the associated significant volumes of equipment into the affected areas and the injured were unable to be moved effectively. Development of plans and procedures to support

people in place and the assistance of external support requires further consideration at all levels.

- The severe impact on the operations of Wellington's hospital facilities due to the disruption caused to bulk and local water supplies was highlighted. It is noted that the lack of reticulated water is likely to continue for several weeks under this scenario.
- There was a lack of early information on the disaster effects of the earthquake forwarded to the Auckland CDEM Group for them to get a clear picture of the extent of support that would be required. CDEM Groups need to incorporate in their business continuity planning how to operate in crisis mode while supporting another region and developing further Memoranda of Understanding between different CDEM Groups.
- There was some confusion over the role of Public Information Management during a national declaration and clarification on the roles at local, regional and national levels requires further work and practice.
- It was agreed that lessons learned should be the basis on which to go forward and to improve rather than 'start again' for each exercise and that this requires commitment to regular engagement.

5. Recommended Activities (actions) to consolidate lessons learnt

Based on the observations and feedback from those involved in the exercise, it is considered that the exercise aim and objectives were met. However, several issues were identified and these will be addressed by the Wellington CDEM Group through the following recommended activities:

- The Wellington CDEM Group to organise a meeting of the Regional Welfare Advisory Group to clarify the operational interfaces with the Group Emergency Operations Centre (GEOC) desks and the National Welfare Recovery Co-ordinating Group (NWRCG).
- Ministry of CDEM and Wellington and Auckland CDEM Groups to review the desired form of outputs of key Emergency Operations Centres (EOCs) (Group and National).
This work is to include an analysis of the fundamental output objectives of a Group EOC (as a contrast to what Territorial Authority EOCs and the National Crisis Management Centre do) and consider process changes required and consideration of how CEG Chairs can be operationally involved.
- Each participating agency to make specific plans to consolidate exercise learnings into their response plans and SOPs.
- The Wellington CDEM Group to review the current 'options list' of likely resources required by and made available to relevant CDEM Groups (and kept updated). This should then be workshopped with the Auckland and Canterbury CDEM Groups.

- MCDEM (National Controller) to hold discussions with Maritime NZ and the Wellington CDEM Group regarding the management of the maritime environment and sea access in emergencies, with the aim of developing specific procedures and resource agreements.
- The Wellington and Auckland CDEM Group Public Information Management (PIM) representatives to meet with MCDEM PIM plus other representatives from the Ad-Hoc Communications Group to 'replay' event experiences to align thinking and objectives.
- The Wellington CDEM Group Emergency Management Office to meet with all parties involved in reconnaissance as part of reviewing and updating the Group Reconnaissance Plan. As an adjunct to this work, Transit NZ, Fulton Hogan and MWH Consultants are to develop a collective reporting form.
- The Wellington CDEM Group to prepare and circulate to key agencies a non-technical paper which summarises previous & current work on the physical and organisational impacts of a major Wellington earthquake, including resource demands and constraint aspects.
- The Wellington CDEM Group to ensure the risk modelling opportunities presented by the GNS *It's Our Fault* project incorporate elements highlighted in this exercise (for example the extent of inundation of the lower Hutt Valley) and updates previous work to reflect developments in the built environment.
- The Wellington CDEM Group to involve key infrastructure agencies in discussions around additional risk modelling proposed or required (noting their responsibilities as lifeline utilities).
- All organisations with key response roles (central and local government and private) should:
 - have a seismic performance assessment of their premises undertaken.
 - establish a priority response agreement with a structural engineering practice for post-earthquake building safety and occupancy evaluation.
 - review the adequacy of their emergency power, water and sanitation arrangements for prolonged response activation.

6. Conclusion

The participation of all of the agencies was enthusiastic and constructive, with significant commitment evident from a number of the individual organisations and other co-ordinating agencies. The considerable preparatory work undertaken by most participating agencies in the lead up to Exercise Capital Quake was a key element in the success of the exercise.

Based on the observations and feedback from those involved in the exercise, it is considered that the exercise aim and objectives were met. A number of important operational learnings, within and across agencies, resulted from this exercise and capability development needs have been identified.

7. Recommendation

That the CDEM Group:

- 1. receive the report; and*
- 2. note the contents.*

Report prepared by:

Roger Blakeley
Chairperson, Co-ordinating
Executive Group