A Tale of Two Universities

Lessons Learned ...

..... NOT Forgotten

Chris Hawker
Director
Centre for Risk, Resilience & Renewal
Primary Incident Controller
UC Incident Management Team
In mid 2006 UC had minimal effective response planning in place

Emergency management development tasked to two staff

First steps towards being prepared included;

- Researching & understanding the hazards & risks
- Developing a preparedness plan & dedicated facilities
- Incorporating international best practice response structure
- Active engagement with University leadership to agree processes
- Understanding and accepting UC’s role with the wider community
- Investing in training key personnel
- Undertaking regular training and exercises to develop skills
- Amending the process as our understanding increased
- Refining the plan through international engagement
Learning from CSUN - 2009

Academic Aftershocks, Jan 17, 1995
California State University - Northridge

1. Introduction (Windows Media File, 1.6MB)
2. Los Angeles: Monday, January 17, 1994 (WMF, 3.9MB)
3. A table and four chairs ... (WMF, 4.6MB)
4. Absolutely inundated! (WMF, 5.6MB)
5. What a disaster (WMF, 5.2 MB)
6. A payphone and a roll of quarters ... (WMF, 4.0MB)
7. We will reopen! (WMF, 3.05MB)
8. A little tent on the lawn ... (WMF, 7.5MB)
9. You've got the document (WMF, 3.4MB)
10. In many ways we were acting as if ... (WMF, 5.3MB)
11. It kept us busy (WMF, 8.5MB)
12. It's not worth anyone's life (WMF, 3.6MB)
13. More like the military than a University ... (WMF, 4.0MB)
14. Biology 107, over here by the tree! (WMF, 6.8MB)
15. After the honeymoon phase ... (WMF, 16.5MB)
16. P. S. (WMF, 5.5MB)

Digital Media Inc.

Thanks for the Lessons, March 2011
University of Canterbury
Two Universities
16 yrs. 7 months Apart

California State University
Northridge

• 4:31 am
  Jan. 17, 1994 (MLK Holiday)
• 6.7
• Over 12 major aftershocks
• 30,000 students, faculty & staff
• $400M total recovery costs
• 100% of campus buildings affected
• No loss of life
• Total recovery took 9 years

Source: Richard West, Executive Vice Chancellor/CFO, CSU 2006

UC University of Canterbury

• 4:35 am
• Sept. 4, 2010 (Term Break)
• 7.1
• Over 25 major aftershocks ≥ 5Mw
• 18,000 students, faculty & staff
• $400M total recovery costs (and climbing)
• 100% of campus buildings affected
• No loss of life
• Total recovery will take 10+ years

Source: UC Annual Reporting
But Christchurch Changed the Rules …….. February 22, 2011

<table>
<thead>
<tr>
<th>$M_w$ 6.2 within 5 km of the CBD</th>
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<tbody>
<tr>
<td>Lunchtime/early afternoon - weekday</td>
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Ground motion exceeded 2x force of gravity
185 fatalities
1,000 + serious injuries
1,400 buildings in the CDB damaged beyond repair *(Most in CBD in older brick)*
Casualties

Source: New Zealand Police and The Press
The Importance of Contributing to Community Resilience

• A City severely tested
  – September 4th, 2010  7.1 $M_L$ + 98 Aftershocks
  – December 26th, 2010  4.9 $M_L$ + 32 Aftershocks
  – February 22nd, 2011  6.3 $M_L$ + 11 Aftershocks $> 5.0$ $M_L$
  – June 13th, 2011  5.9 $M_L$ followed by a 6.4 $M_L$ Aftershock
  – December 23/24, 2011  6.0 $M_L$ + 4 Aftershocks $> 5.0$ $M_L$

• Being a resilient institution allowed us to contribute to the community need
  – Provided a home for the Regional and National Civil Defence teams
  – Tasked our University USAR Team to assist with the CBD Rescue efforts
  – Our Structural Engineers were heavily involved in the CBD
  – Our Geo-Scientists provided knowledge and understanding which our wider community desperately needed
Supporting our Wider Community

The 2010-2011 Canterbury Earthquake Sequence: Performance of Concrete Buildings: Issues and solutions to meet societal expectations

Stefano Pampanin
Department of Civil and Natural Resources Engineering
University of Canterbury
Outcomes
As an Institution we learned a Lot

1. Individual preparedness is the most critical step

2. Preparedness education need to be relevant, understandable, and in many cases, personal

3. A community is stronger if organisations and institutions contribute by being independently prepared ... support and foster this attitude
Outcomes
Global connections will make a difference
There is no such thing as a 'natural' disaster, only natural hazards

Disaster risk reduction is the concept and practice of reducing disaster risks through;

- **Systematic efforts to analyse and reduce the causal factors of disasters**
- **Reducing exposure to hazards**
- **Lessening vulnerability of people and property**
- **Wise management of land and the environment**
- **Improving preparedness and early warning for adverse events.**
No country is an island in a lonely sea. We all have skin in this game and we need to play as one global team.
Questions