

# Crisis Communication

Scenario-based role play for Journalism and  
Geohazard (HAZM) students

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# Crucial role of media

- Media are the key source of information during a disaster (Scanlon, 1998)
- Broadcast media in particular have impact by providing clear, consistent and timely messages to communities at risk (Raj, Ullah and Akhter, 2010)
- Radio is the most trusted type of information (Opus Research, 2014)

Wellingtonian's experience of the  
Friday April 16, 2013  
6.6M<sub>w</sub> Lake Grassmere earthquake  
**Information sharing (within the 2 hours  
following)**

**Phone**

69% sent/received text messages

62% made/received cell phone calls

48% sent/received delayed texts

38% spoke on a landline

37% tried to make a call but couldn't get through

**Face-to-face**

61% shared information face-to-face

31% received Geonet info from someone else

**Traditional**

25% obtained information **via radio**

24% obtained information via TV

**Online**

53% accessed Geonet information

19% used Facebook to share/gather information

5% tried but could not access Geonet

4% used Twitter

2% checked Stuff.co.nz

# Overview

- Role-play simulation based on real-time disaster
  - Complex science
  - Uncertainty
- Crisis communication under pressure to diverse and broad audience



# Scenario #1: Mt Taranaki eruption

- Thin volcanic ash falls to east & south
- First eruption in ~150-250 years
- What happens next?



# Consequences

- Health impacts
- Dairy farming
- Oil + gas industry
- Lifelines



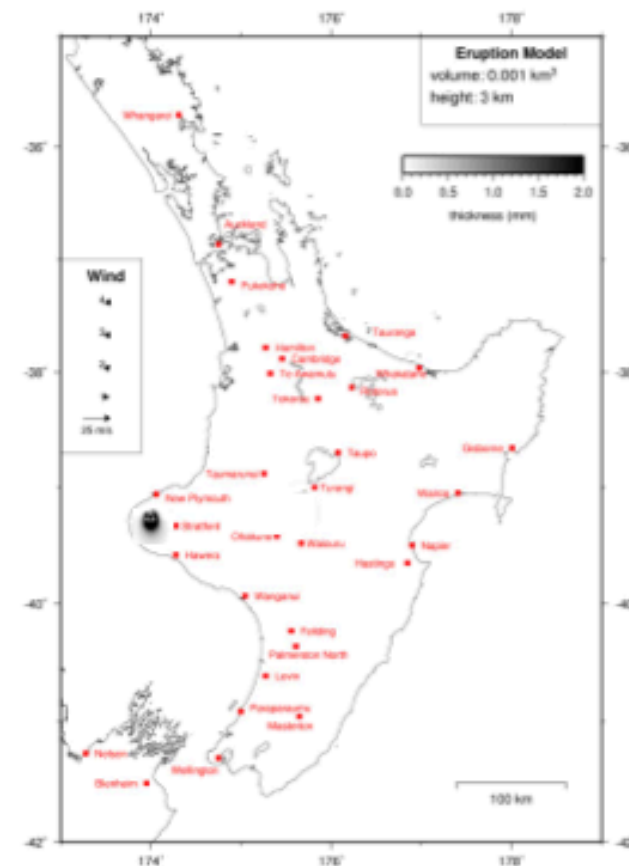


**VOLCANIC ALERT BULLETIN: TARA – 2013/02**  
 11:16 am Tuesday, 17<sup>th</sup> September 2013  
**Taranaki Volcano**  
**Volcanic Alert Level 2**  
**Aviation Colour Code: Red**

# Media timeline

- Series of Volcanic Alert Bulletins: 11.10, 11.16, 11.45, 11.50, 12.30
- + interviews with eyewitnesses & civic leaders
- Media conference at 1pm, one hour after eruption
  - Volcanologists
  - Emergency Management (CDEM, MPI)
  - Civil leadership (Mayor)

Volcanic Ashfall forecast:



The ashfall forecast refers to possible ongoing activity following the Taranaki eruption this morning at 11:10 am. GNS Science volcanologists are monitoring the eruption and further information will be released as soon as it is available.

Alike Bigéruptóiláns  
 Duty Volcanologist  
 (#64-3) 364-2987 ext 45511

# Reporting assignment

- Report live to class website, The Record
  - pix, links and regular updates
  - Full story by 2pm, final wrap by 4pm
- Radio students required to have writs for midday bulletin and packages at 2pm and 4pm
- TV students to file live cross from 1pm media conference

# Scenario #2: East Coast tsunami

- 10am 9.3M Peruvian fault rupture
- Tsunami warning: NZ in direct line of 5m+ waves
  - First waves to hit in 12 hours at low tide – worst case scenario
  - significant risk to Christchurch post-quake
- How do people prepare? What happens next?



What to do in a tsunami.

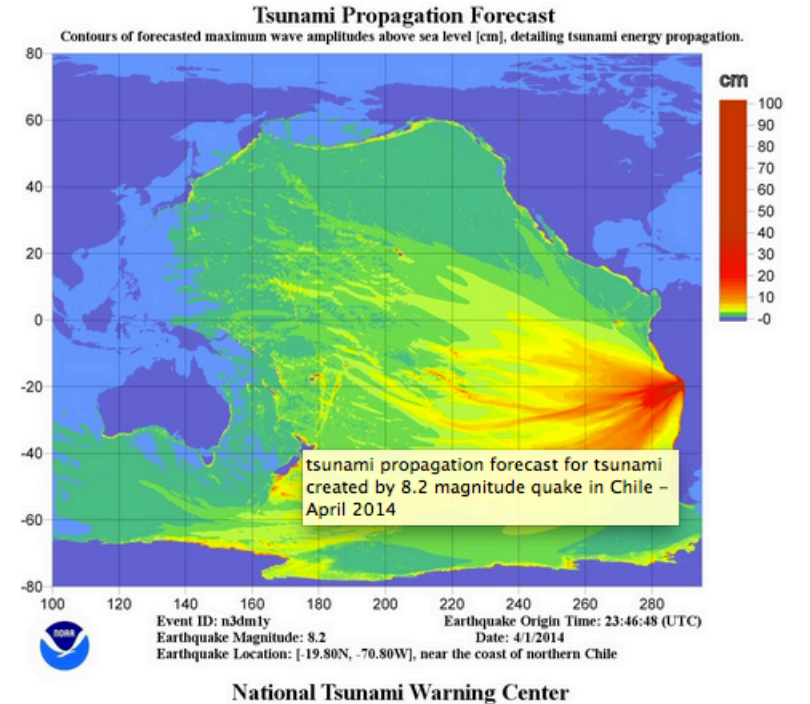


Gisborne flooding caused by a tsunami generated by an earthquake off the coast of south-central Chile, 1960.



# Consequences

- National emergency will be declared
- All of East Coast to prepare for evacuation
- Waves won't have uniform effect; Chch particularly badly affected
- Key infrastructure
  - ports, Marsden Point, Cook Strait high voltage cable



# Media timeline

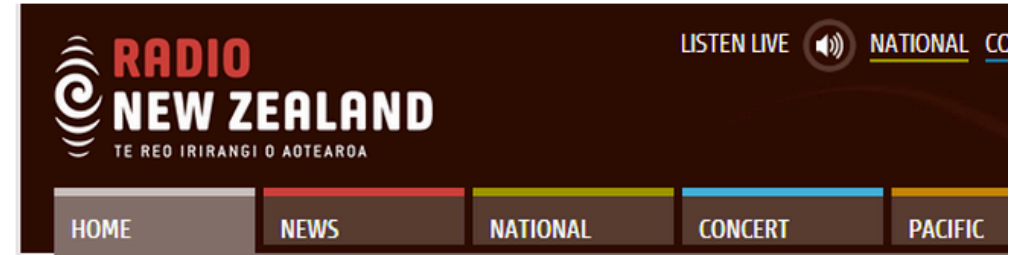
- Tsunami alerts: 10, 10.10, 10.45, 1.45
- + eyewitness accounts from suburbs and media briefings:
  - 10.30am duty Geonet officers
  - 12.15pm PM & CD minister
  - 12.45pm Chch Mayor
- 2pm press conference – national CDEM
- 3pm press conference – regional CDEM

Message pacific.TSUPAC.2014.08.18.10.01

Tsunami Information		Earthquake Information	
<b>Message Time:</b>	18 Aug 2014 22:01 UTC	<b>Preliminary (PTWC)</b>	
<b>Message Num:</b>	1	<b>Origin Time:</b>	18 Aug 2014 22:01 UTC
<b>Message Type:</b>	Expanding Regional Tsunami Warning Supplement	<b>Magnitude:</b>	9.0 Mwp (auto by USGS)
<b>Warning:</b>	Chile, Peru, New Zealand, Australia, Antarctica, Tonga, Western Samoa, Fiji, Papua New Guinea, American Samoa, Hawaii,	<b>Latitude:</b>	18.6° S
<b>Watch:</b>	Alaska, USA China, Japan, Russia, Canada, Guam, Philippines, Japan	<b>Longitude:</b>	74.5° W
<b>ETAs / Obs:</b>	<a href="#">measurements</a>	<b>Depth:</b>	15 km (6.2 mi)
		<b>Location:</b>	Near the Coast of Peru

# Reporting assignment

- Report live to class website, The Record
  - pix, links and regular updates
  - Full stories by 12 & 2pm, final wrap by 4pm
- Radio students required to have:
  - writs for 11am, 12, 1pm and 2pm
  - voicers for 1pm and 4pm
  - live cross at 3pm



## **BREAKING: tsunami warning for NZ**

A major earthquake has struck off the coast of Peru triggering a tsunami warning for New Zealand and the rest of the Pacific. Ministry of Civil Defence is advising people living near the East Coast to prepare for an evacuation.

### Essential Information:

- A 9.3 magnitude earthquake off the coast of Peru has generated a tsunami.
- A warning is in place for New Zealand.
- The tsunami is expected to reach the Chatham Islands by 8.30pm tonight and Gisborne by 10pm tonight.
- Residents are advised to prepare the essentials for evacuation, and to be more than 5 kilometres inland, or 45 metres above sea level.
- When evacuating, walk or bike. Limit the use of cars.
- Further information on what essentials you need can be found on [Civil Defence's website](#).

# Learning Goals

## **HAZM**

- Practice working professionally with various media outlets
- Appropriate communication for diverse audience
  - style and content
- Experience under pressure
- Authentic, credible and appropriate behaviour

## **JOUR**

- Reporting accurately at speed
- Appropriate communication of science -- and risk
- Precise communication of public safety information
- Appropriate professionalism
  - Interviewing
  - Style and content

# Issues to deal with

- Managing a highly uncertain, complex event
  - Multiple possible outcomes -- potentially lethal + losses in the millions
  - Incomplete information
  - Students must establish key effects and risks + worst case scenario
- Pressure to provide information to an anxious public
  - Potential for misinformation & scaremongering
  - Students must accurately translate the science, risks and jargon – at speed

# Feedback/Debrief

- Feedback throughout the day as CRs
  - Point out inaccuracies, contradictions, lack of clarity/extra info needed
- End day with brickbats and bouquets
  - best website, most accurate reporting, best interviewing, silliest question
- Follow up lesson with feedback from HAZM lecturers and students + critique of video of the media conferences + critique of interviewing

# Feedback/Debrief – mark final stories

- “Taranaki blew it’s top twice before lunch” – too colloquial even for TV3
- Report says New Plymouth residents have been told to prepare for evacuation (which was not the case) then lower down says that people within a 15km radius should be ready to evacuate – but New Plymouth is further than 15km from the mountain.
- What is a “*disrupting pyroclastic flow*” – if you don’t know, the viewers won’t either. Demystify the science; put it in plain English.
- “A state of emergency has been declared in Mt Taranaki following this morning's explosion” – what explosion, a bomb? Even if you’re updating something from earlier you still have to spell out what has happened.

# Benefits

## HAZM

- Authentic communication exercise from real 'non-science expert' journalists
- Team bonding
- Scary but fun

## JOUR

- Exposed students' strengths and weaknesses
- Graduates subsequently reported being more confident and able when covering breaking news events
  - 2014 floods, NI storms
  - Ashburton Winz shooting



Before	Student survey 2014 (n=10)	After
1	Confidence to accurately report a natural disaster	7
3	Confidence to convey necessary public safety information in a natural disaster	5
3	Know where to find public safety information	9
1	Confidence to accurately report the science in a natural disaster	4

# Student survey 2014

- “I understand better now what questions to ask in a press conference and how pushy I need to be to get in ahead of other journalists before the conference is over -- and to ask the hard questions.”
- “I learnt a lot about reporting for a disaster: what websites to refer people to, what to be able to write early on when there is very little information known, and how to write sensitively and accurately for vulnerable people.”
- “I felt that I was not quick enough getting the information online. It was good for me to become more aware of what my weaknesses are.”

# Lessons

- Collaboration adds value to both programmes
- Adequate preparation time is essential
  - 2013 HAZM – 2 prep lectures and 2 tutorials/workshops
  - 2013/2014 JOUR – after radio module & 1 prep lecture on reporting science
- Debrief essential
  - HAZM & JOUR lecturers review performance of both groups of students
  - Feedback from scientists enriches critique of JOUR reports
- Keep it simple...can refine next time.

# Future: focus on science communication research

- Emma Hudson Doyle et al (2014):  
<http://www.sciencemediacentre.co.nz/2014/10/17/media-disasters-the-public-audio-collection/>
- Verbal phrases (likely, unlikely, certain, uncertain ) suffer translation issues > use numerical AND verbal probabilities
- Problems with long-time time forecasts
  - Use smaller forecast window and “within” rather than “in”
  - EG “68-88% chance of an eruption in the next ten years” vs “an eruption is likely (66-90% chance) within the next 2-3 days”

# Future: focus on science communication research

GNS Science, Massey University Joint Centre for Disaster Research and USGS study on Canterbury aftershock sequence. Key lessons:

- Provide context – frame information relative to previous points in time (eg Edgecumbe) and other risks accepted by society
- Use simple summaries of probabilities
- Include multiple formats – maps, text, tables and graphs
- Include explanations of information
- Describe potential impacts