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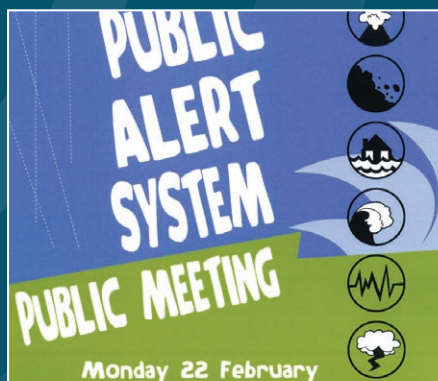
National CDEM
**Emergency
Management
Information
System**



In this issue



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Ministry of Civil Defence
& Emergency Management

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EDITORIAL

Unpredictable and exciting times



John Hamilton, Director

We live in unpredictable and exciting times. The weekend of 27/28 February 2010 saw us involved in managing the response to the tsunami generated by the M8.8 earthquake in Chile. Our response was very different and a vast improvement over that for the Samoan tsunami threat in September 2009.

Post-action reviews of the Samoan response indicated the need to enhance our processes and our thinking - in the intervening period many applied themselves to implementing changes. The Chilean tsunami provided the test and showed that we have applied the lessons well.

The Chilean tsunami response was implemented at many levels and positive changes were evident in most of them. A significant improvement was seen in the way the media were used to distribute warnings and messages to the public. The media have to be seen as our partners but simply pumping out information is not enough. It has to be co-ordinated vertically and horizontally to ensure consistency and accuracy while allowing local detail to be applied to the messages.

The Group Controllers' conference call to discuss the estimated arrival time was a great help in providing that co-ordination. But I think we can still improve our performance in the digital space and websites. Not all councils were able to quickly update their websites with current situational information or show clearly what the local response should be.

At the national level we have work underway looking at how best to use telecommunications technologies to distribute warnings and alerts. Succinct warnings and messages are worthless if they are not backed up by local plans and awareness. Now is the time to consider the efficacy of local response plans and community awareness, particularly in the urban areas where the challenges are magnified, to ensure the

connections and linkages we expect for an effective response are actually in place.

The introduction of the Emergency Management Information system (EMIS) to the CDEM sector is another exciting development that will also help co-ordinate response activities across New Zealand. But another word of caution: the machine will not make the decisions! It will certainly help our decision-makers make better decisions faster by providing up-to-date and clear information. However, like all information management systems, the quality of the data entered determines the quality of the data and information displayed.

Equally the EMIS will not do the conceptual thinking and it will not do the planning. It will certainly help but there is always the need for a "person in the loop". This issue of Impact provides material on EMIS and we look forward to joining many of you in Wellington on 15 March to have the E-Sponder system and the EMIS project explained.

I congratulate those whose efforts contributed to the excellent response to the Chilean tsunami. We have moved the bar up a couple of notches and with that come new challenges. Our key stakeholders will now expect all responses to be of that standard in every respect. Are we up to it? EMIS will help us but it is not our salvation.

We must not assume that one good performance assures another, especially in a different scenario. But we can provide assurance by systematically checking our thinking against our planning; by ensuring the linkages are strong and that there are no loose ends; and that workstreams are co-ordinated.

Put yourself in the place of a member of the public. You know what you expect them to do in an emergency such as a tsunami. What can you do to ensure they will do what you expect? ▲

Survivors remember 1931 Hawke's Bay earthquake

Nearly 300 survivors of the 1931 Hawke's Bay earthquake gathered with family and friends at Napier Boys' High School on Sunday, 14 February 2010 for the annual commemorative afternoon tea.

The event was organised by Napier City Council, Napier Boys' High School, Hawke's Bay Regional Council, Art Deco Trust and The Tennyson Hotel.

It is hosted to honour survivors of the earthquake, their memories and the people affected and to give them a chance to catch up with others who lived through



Survivors of the 1931 quake reminisce over photos of the devastation.

New Zealand's worst natural disaster. The New Zealand Red Cross also supported

the event by providing name badges for attendees to wear based on a replica of the Red Cross evacuee tags used in 1931. They also assisted people to complete the guest book of attendees.

Alan Dick, Chair of the Hawke's Bay Civil Defence Emergency Management Group was honoured to be involved:

"It was truly a community event. We have been thrilled with the generosity of many organisations and businesses who contributed to make this a special afternoon for our senior citizens." ▲

Busy year for international emergency relief deployments

2009/2010 has been a particularly busy year so far for New Zealand's contribution to United Nations Disaster Assessment and Coordination (UNDAC), and bi-lateral support for disaster impacted Pacific Islands.

This contribution is provided through a memorandum of understanding between the Ministry of Civil Defence & Emergency Management and the Ministry of Foreign Affairs and Trade, supported by resourcing from central and local government agencies.

Deployments included an UNDAC Team Member (Ian Pickard, NZ Fire Service) who was deployed to the Philippines in

October responding to a number of devastating typhoons

UNDAC Team Member (Jim Stuart-Black, NZ Fire Service) responding to the Samoan tsunami. Further technical support was provided by Joerg Regenaermel from the Department of Internal Affairs, with the deployment of the UNDAC Mission Module to support UNDAC operations.

Jo Guard, MCDEM National Operations, was deployed to Samoa to provide technical support to the National Disaster Management Office during the response phase of the Samoan tsunami

Ian Wilson, MCDEM Regional Emergency

Management Advisor, was deployed to Tonga to provide technical support to the National Disaster Management Office

Peter Cameron, MCDEM Southern Regional Coordinator, was deployed to the Samoa National Disaster Management Office during the early recovery phase of the Samoan tsunami

UNDAC Team Member Rian van Schalkwyk, from Greater Wellington Council, was deployed to the Cook Islands in Response to Cyclone Pat.

For more information, contact John Titmus on 09 362 5172

Christchurch City adopts community web service

Schools, businesses and community groups are being encouraged to sign up to the Christchurch City Council's new web-based Readynet service to help them be as prepared as possible to cope with a civil defence emergency.

Readynet helps groups develop an emergency action plan, which is then stored on a secure, encrypted website. Information entered contributes to a database about organisations and groups throughout the city, which will help with planning and response if an emergency occurs. Information gathered includes the number of people on site, a site map, details of people with special needs, and the site/group primary contact details.

Civil Defence Emergency Management Manager, Murray Sinclair, says an example of Readynet's use is a tsunami

threat to the east coast of Canterbury. The Council's civil defence unit would be able to easily pull together a list of all organisations, schools, and businesses in the affected area. The system will provide civil defence staff with information about how many people need to be evacuated, those with special needs and site hazards. Email or txt updates can also be sent to primary contact people.

Murray says a number of schools and businesses have joined. The Council has entered a contract allowing any organisation to join Readynet for free. He says the system will be most effective if there is widespread adoption so he is encouraging all organisations to sign up.

Mayor Bob Parker says a successful response to a civil defence emergency requires planning from both the local

authorities and the public. He says Readynet is another tool to ensure both the Council and the public are in a strong position to cope.

"In the last six months the tsunami in Samoa, the earthquake in Haiti and the earthquake and tsunami in Chile have been a stark reminder of the devastation which can be caused by natural disasters. We all hope that Christchurch doesn't have to face such events, but we also need to do what we can to ensure we are as prepared as possible just in case. The Readynet system is another tool to help the Council and the community's response if the worst should happen," he says.

For more information about signing up to Readynet please phone the Christchurch City Council call centre on 941 8999, or email civildefence@ccc.govt.nz ▲

University of Canterbury revises plans for emergencies

Tertiary institutions, such as universities and polytechnics, are large communities in their own right. The University of Canterbury (UC) is aware of its need to be prepared for an emergency and to be able to contribute to the safety and security of its staff, students and visitors.

In mid-2006 the University's Policy and Risk Manager, Jacqui Lyttle along with Group Manager of Operational Services, Chris Hawker were jointly tasked with the review and updating of the University's existing Emergency Management Plan. After careful review, the decision was made to develop a completely new plan based on international best practice, rather than update the existing plan.

Research was undertaken from universities across the globe and ideas, processes or plans suitable for UC were considered. Special consideration was given to information provided by institutions that had previously faced critical natural events such as severe weather or earthquakes as well as those who faced the human tragedy of mass-shootings.

"It quickly became clear that the best plans were not prescriptive how to's, but rather frameworks for action and communication which allowed key people the flexibility and support to react to the situation at hand," says Chris.

There were several objectives identified in developing the response plan. They are to:

- clearly outline the process UC will follow during an emergency, especially the initial response
- provide a framework for people to develop competencies to effectively respond
- assure the continued accuracy and relevance of the plan and procedures;
- establish review process
- ensure that relationships with key stakeholders were established and communication pathways opened.

Business continuity planning across the University was also seen as being critical to recovering from a major event and a specific project was begun which is ongoing.

Plans alone provide little assistance if they are not widely circulated, understood and have people who are trained and



The university's new Emergency Operations Centre; the base for response and recovery activities as well as facility for research and training in the areas of emergency management and preparedness.

Without an educated and trained team, no matter how good the plan is, it won't save a life.

prepared to carry them out. UC's emergency management structure is based on coordinated incident management systems (CIMS) which is the coordination structure used by all the main emergency services in New Zealand.

In addition to having an integrated management team in place, the University also supports its own response team, which includes 11 members qualified to New Zealand Urban Search & Rescue Orange Card level.

Training has been a major focus and numerous table top exercises have been undertaken which have led to two large scale exercises; the first simulating a major earthquake and the second a violent incident on campus. Both exercises were supported by external agencies with the latter including a full New Zealand Police Armed Offenders Squad.

"A further exercise was planned for mid-2009 however the H1N1 threat arose and this became an exercise for real," says Jacqui. "Pandemic planning within

the University is now well established."

Education is also a major focus and from the beginning of February 2010 personal emergency kits have been offered to all staff and PhD students. These kits are intended as a prompt to 'Get Ready, Get Thru' at work and one of the items included in the kit is the Ministry's Get Ready Get Thru information pamphlet.

The other major initiative on campus is the development of a dedicated Emergency Operations Centre which was completed in late 2009.

"The centre's key purpose is to be the base for response and recovery activities if – or when – they were required, but opportunities to use the facility for research and training in the areas of emergency management and preparedness are also being explored," says Chris.

Chris and Jacqui note that achieving an effective level of preparedness requires active support from across the whole University, especially from the Vice Chancellor's Office, and the commitment of staff who will be tasked with dealing with an event.

"Without an educated and trained team, no matter how good the plan is, it won't save a life," adds Chris. ▲

Hawke's Bay community embraces response plan development

Residents of Haumoana and Te Awanga in Hawke's Bay have formed a working group to create a community response plan for how to Get Ready, Get Thru in a civil defence emergency.

More than 60 residents attended a meeting in late February to discuss public alerting systems for the coastal community.

The community response plan along with the process around creating it, will act as a pilot for other communities in Hastings District and wider Hawke's Bay wanting to improve their resilience to civil defence emergencies. The process follows a model developed and implemented by Whangarei District Council.

Heretaunga Ward councillor Rod Heaps chaired the meeting, called by Hastings District Council, which aimed to provide information on local hazards and to form a group to create a plan of action for developing local alert systems. Representatives from Hastings District Council and Hawke's Bay Regional Council's civil defence teams and GNS Science gave presentations.

"Haumoana and Te Awanga already has a very active volunteer civil defence team and the potential hazards to the community have already been identified – so it made sense to start the project in this community," Rod says.

Community response plans are owned by communities, while council's assist with the plan formulation and maintenance. Plans aim to encourage communities to undertake their own risk reduction and problem solving as well as community response and recovery plans. A well formulated plan also assists the community to respond to emergencies without the need for outside assistance.

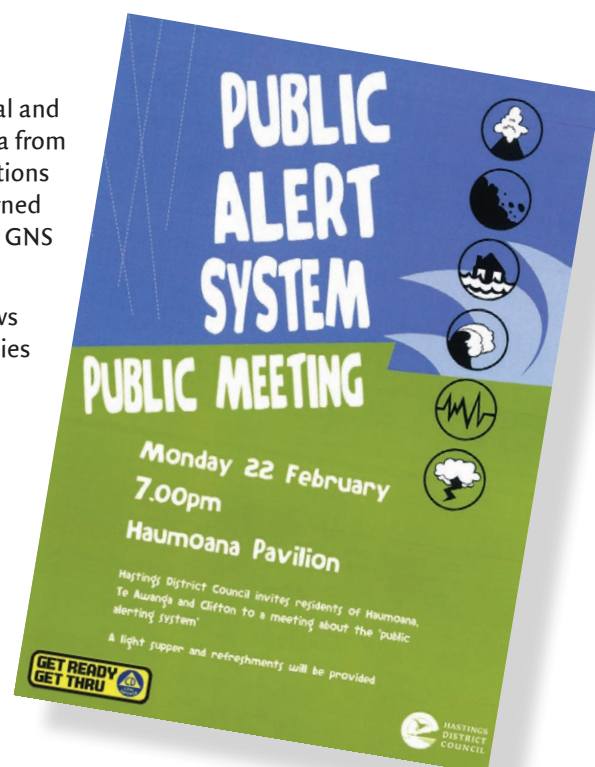
It is expected the Haumoana/Te Awanga community response plan will take an all-hazards approach to include flooding, earthquake, tsunami and the other top ten hazards identified for Hawke's Bay.

Last year the Ministry of Civil Defence & Emergency Management released the public alerting systems decision support tool for use by the CDEM sector (see the

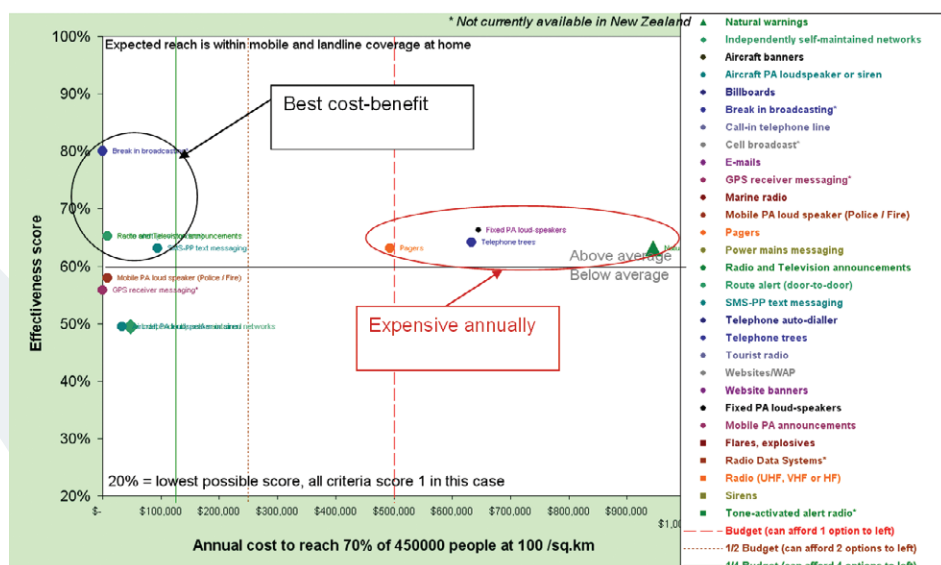
Ministry's website for more information). The interactive programme is based on national and international best practice, data from real events and the range of options currently available. It was designed by social science researchers at GNS Science in Wellington.

The tool is easy to use and allows local and regional CDEM agencies to assess the best range of alerting options for their communities based on budget, the hazards they face and demographic factors (see the screen shot below).

The decision tool will be used by the Haumoana/ Te Awanga and Clifton working group when assessing the range of alerting options they could incorporate into their community response plan. This operational test of the decision support tool by Hastings District Council Emergency Management alongside community members is a New Zealand first. The working group will be able to provide valuable feedback on the usefulness of the tool and any improvements they identify. ▲



A poster developed to raise community awareness of the upcoming meeting was distributed in numerous public places.



Example of how cost benefit scores are presented in the decision support tool. This chart shows budget limitation (red dashed line), annual cost and how different alerting options compare in effectiveness. This example is for a low density population.



Activation of the National Crisis Management Centre during a recent exercise. E-Sponder will provide a common, standardised operating environment for managing events.

National CDEM Emergency Management Information System

It has been a long time coming, but now the wait is almost over. A new, standardised operating environment for civil defence emergency management (CDEM) will soon be launched.

Ministry has selected E-Sponder, partnered by Interger, as the preferred solution for the provision of a national Emergency Management Information System (EMIS) for CDEM in New Zealand.

The procurement process began with a registration of interest in July 2009. Twenty responses were received, resulting in requests for proposals from five of the respondents. An intensive evaluation process followed and resulted in three vendors being short listed for proof of concept demonstrations. CDEM Groups and NZ Fire Service were represented in the proof of concept demonstrations and subsequent final evaluations. In the end the panel was unanimous in its selection.

E-Sponder is a web-based system. As a product operating on SharePoint, E-Sponder aligns closely with Microsoft. The system will be hosted on a dedicated server in the National Crisis Management Centre and will also be replicated on a dedicated server in Auckland to provide redundancy.

The centrally-hosted system will offer MCDEM, CDEM Groups and their member councils, each with their own site or 'system within a system'. This ensures total integration with all users being able to see relevant information across user agencies and certain information 'rolling up' to the next level.

Each user agency (MCDEM/CDEM Group/Local Authority) will maintain a degree of autonomy with the ability to create an event on the system, managing and maintaining base data within their own, secure website structure, deciding and assigning user rights and training their users.



E-SPONDER.

Web-based

As E-Sponder is web-based, users can access the information system anywhere there is web access. Full access is provided for desktop/laptop computers and partial access is provided for palmtop and mobile devices. The communication, tracking and recording of data occurs in real-time and includes full search capability.

Creation of a common operating environment

E-Sponder allows for the creation of standardised reports. For example, action plans, situation reports, resource status information, requests and staff rosters. These will allow users to create and access information within a familiar report structure.

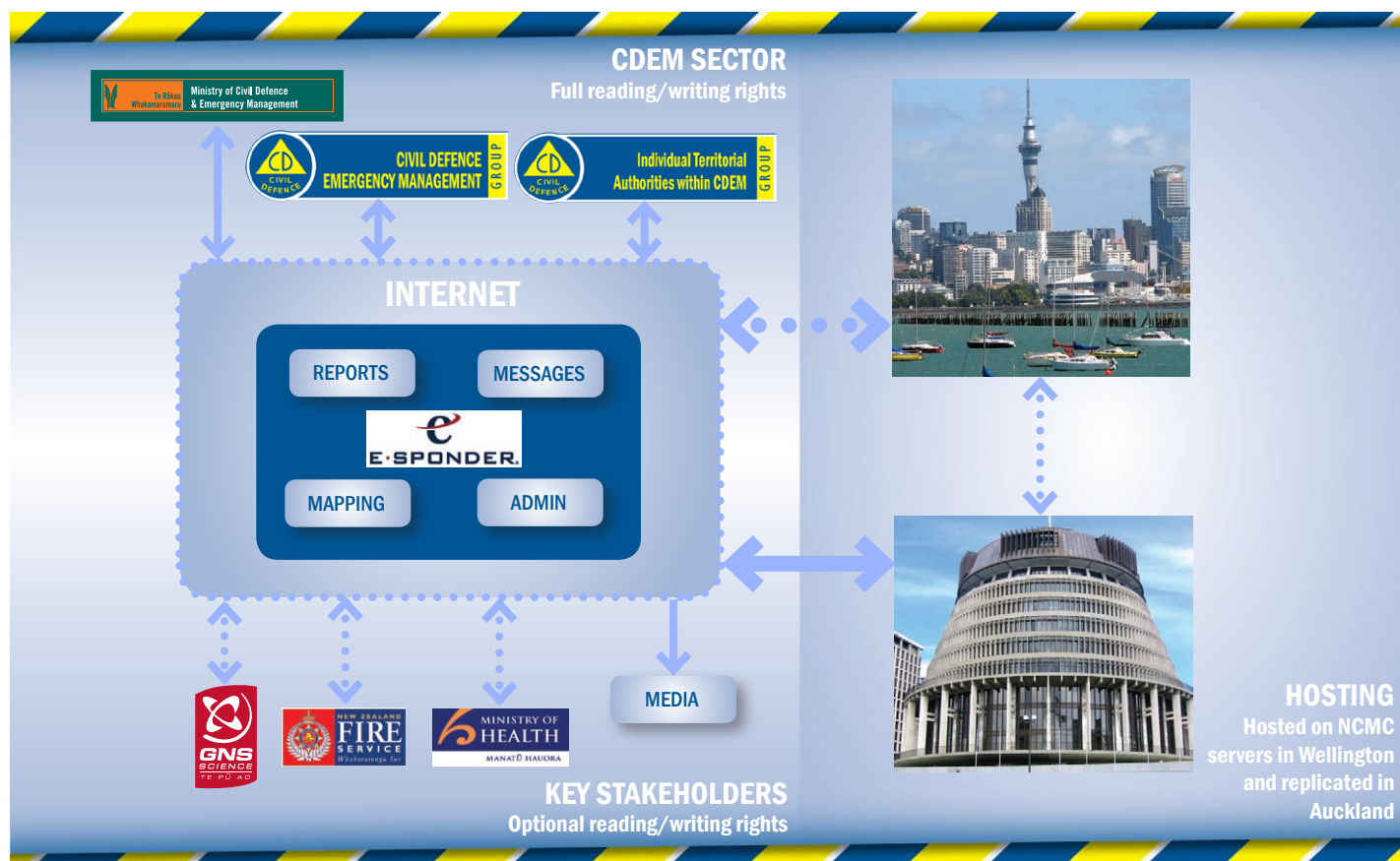
In addition, lists of key tasks can be created to simplify task assignment and the monitoring of their progress. Tasks can be assigned to specific roles and monitored. Likewise, resources can be monitored and managed. While E-Sponder provides a common operating environment, users are able to maintain their own contact and resource data and display 'dashboards' can also be customised.

Communication tools

E-Sponder can be used for the dissemination of alerts to individuals or designated lists such as staff, emergency management offices or media outlets via SMS, email and voice. Transmissions can also be tracked. Similarly, the system can automatically distribute reports to designated lists of users or groups.

Mapping

A powerful tool for CDEM is the mapping capability of the system including the visual display of map information using



GIS technology along with the ability to import third party data and displays. Additional GIS capabilities will be developed immediately following deployment.

Support

On-going support of the system will be provided by Interger which is expanding its capacity to focus exclusively on this service. All user agencies will have direct access to the Interger helpdesk for ongoing support.

Being centrally hosted, the current version of the system comes at no licence cost to the CDEM Groups and local authorities. Although take up and use of the system is a decision to be made by the CDEM Groups and councils themselves, the MCDEM hosted system will provide a secure website for each of the 16 CDEM Groups and their member councils. The only cost to them as users will be the provision of computers and Internet connectivity.

CDEM Groups are likely to have the option in the future to purchase their own licence directly from E-Sponder, giving them more self governance of their own system. The current project does not provide for integration in that configuration. Such integration, as well as the integration of other (Non-CDEM) agencies using E-Sponder, will be a future focus.

Initial development

MCDEM is currently working with E-Sponder to develop an initial configuration of the system. This will establish a basis for refining the configuration in partnership with representatives from CDEM Groups to ensure the system design fits all levels of CDEM. An intensive week of joint configuration workshops is scheduled for March.

While the system will be based on the Coordinated Incident

Management System (CIMS), in order for it to be truly integrated we (as CDEM) will have to find common ground in terms of our processes, templates and work-flows. This is the challenge that faces the configuration team. The outcome will mean that most of us as user agencies will have to conform some of our current practices and procedures to the new system. This may be an inconvenience to some, yet it will be a price we pay for a greater benefit, namely the consistency and standardisation that is currently lacking.

Following the configuration workshops, E-Sponder will prepare the system for testing. We anticipate another intensive week of joint testing in May, and after final adjustments we aim to be ready to start 'train the trainer' sessions in June provided by E-Sponder and Interger. The aim is to 'go live' by June/July 2010. All CDEM Groups and local authorities that wish to use the system from the go live date will have to nominate trainers to attend training sessions. Training will provided to CDEM Group trainers for Groups that wish to join later.

Further refinement of the system will undoubtedly occur as we become more accustomed to it, especially during activations. A process for implementing change, managed by a representative users group, will be established.

The need for a national, integrated EMIS is well understood. It has been called for in reviews following exercises and real events and by the CDEM sector. We believe that E-Sponder offers the best fit for that purpose, and we encourage the CDEM sector to embrace it.

For more information about E-Sponder, take a tour of key features at www.e-sponder.com. For information about the implementation of E-Sponder, contact David Coetzee on 04 495 6806. ▲



Exercise Tangaroa is a national, multi-agency civil defence exercise that will be held on 20 October 2010. The exercise will focus on the national response to a distant-source tsunami.

Background

In recent years, major tsunami events have devastated coastal communities around the world. Chile was rocked by a magnitude 8.8 earthquake on 27 February 2010, which triggered a tsunami warning for 53 Pacific countries. Fortunately, the tsunami did not cause major damage to New Zealand, but it illustrates that we must be prepared.

On 30 September 2009, a magnitude 8.0 earthquake occurred in the Samoa Islands region. A tsunami was generated which caused substantial damage and loss of life in Samoa, American Samoa, and Tonga.

An undersea magnitude 9.1 earthquake occurred on 26 December 2004, with an epicentre off the west coast of Sumatra, Indonesia. The earthquake triggered a series of devastating tsunamis along coasts bordering the Indian Ocean, killing nearly 230,000 people in fourteen countries, and inundating coastal communities with waves up to 30 metres high. It was one of the deadliest natural disasters in recorded history. Indonesia, Sri Lanka, India, and Thailand were the hardest hit.

New Zealand's tsunami risk is equal to or greater than its earthquake risk. Large tsunamis have occurred in New Zealand within written history, but have resulted in few deaths and only moderate damage. However, Maori tradition records several large tsunamis killing many people within the last 1000 years.

Consequences and impacts

With the intensification of coastal development in New Zealand in the past few decades, a large tsunami today is likely to be highly damaging. It could destroy buildings, affect essential lifelines utilities and block roads. Many people may need to be evacuated and significant economic, political and social issues could follow.

The impacts of a tsunami depend on its height and run up. Several factors contribute to tsunami damage and casualties. Fast flowing water hits structures, vessels and people with tremendous force and it can erode the land. When a tsunami wave recedes, it can destroy buildings that may have survived the initial impact and it can sweep people out to sea. Considerable amounts of debris accumulate in tsunami waves which damage structures and injure people on both the incoming and outgoing waves. Fire and contamination are also common if fuel installations are damaged and hazardous substances and sewerage are released into the water. Ponding of saltwater over large areas can cause damage to building electrical systems and destroys pastures and crops.

The Tsunami Risk Management Programme

A great deal of work has been done to enhance tsunami preparedness and response in New Zealand over the past few years. Exercise Tangaroa presents an opportunity to test this planning at the national, regional and local levels. The exercise includes, but is not limited to, the Tsunami Risk Management Programme work including:

- National Warning System
- National Tsunami Advisory and Warning Plan: supporting Plan [SP 01/09]
- Tsunami source modelling
- Mass Evacuation Planning Director's Guideline for Civil Defence Emergency Management Groups [DGL 07/08]
- Tsunami Evacuation Zones Director's Guideline for Civil Defence Emergency Management Groups [DGL 08/08]
- Tsunami Signage: Technical Standard [TS01/08]
- Tsunami public education brochure
- Tsunami threat levels

(Note: These documents can be downloaded from the publications area of the Ministry's website)

CIVIL DEFENCE EXERCISING IN NEW ZEALAND

The National Exercise Programme (NEP) was established in 2006 to provide a formal framework to exercising in New Zealand. The Ministry of Civil Defence & Emergency Management (MCDEM) is the overall NEP sponsor.

The programme is owned collectively by the 16 CDEM Groups and managed through a representative governance group. The programme recognises that exercising needs to occur at all levels of the CDEM structure and so a four-tier approach to exercising has been developed. Each tier is based on, and informed by, a consistent regime of planning, observation, evaluation, feedback and continuous improvement.

Tier 1 Local exercise (individual organisation)

Tier 2 Group exercise (with CDEM Group)

Tier 3 Inter-Group exercise (across CDEM Groups, may include MCDEM)

Tier 4 National exercise (New Zealand or part thereof, including central government)

The first Tier 4 exercise under the NEP was **Exercise Capital Quake**, which took place in November 2006 and tested arrangements for responding to an earthquake in Wellington.

The second Tier 4 exercise, **Exercise Ruamoko**, was based on a volcanic eruption in Auckland and was conducted in two phases over four months from November 2007 to March 2008.

Exercise Tangaroa is the third Tier 4 exercise to be held in accordance with the NEP and focuses on the national response to a distant source tsunami warning.

Exercise Tangaroa

The exercise is led by the Ministry of Civil Defence & Emergency Management and is supported by the 16 CDEM Groups, central government departments, emergency services, lifeline utilities, and other agencies as appropriate.

A question may be asked whether this exercise is still necessary after the Chile tsunami event of 27 February 2010. The answer is an emphatic 'yes'. The exercise will provide an opportunity to test improvements made after the Chile tsunami event and to test further technological and information advances that were not used in the February response.

The name for the exercise comes from Maori mythology where 'Tangaroa' is the God of the sea, rivers, lakes and all that live within them.

Scenario

The scenario for Exercise Tangaroa will be a distant source tsunami originating from South America. The exercise will be played in real time and there will be no compression of timelines or artificial times/dates for exercise purposes. The timeframe for the exercise scenario will be as realistic as possible, according to the latest tsunami research.

Exercise Tangaroa focuses on the lead-up to a tsunami arrival, stopping shortly before the first waves reach the Chatham Islands.

Contacts

If you have any questions about the exercise please contact: Jo Guard on (04) 495 6818 or email jo.guard@dia.govt.nz or Tane Woodley on (04) 495 6827. ▲

A lesson learned the hard way

The recent Chile tsunami behaved in a way that positively changed public perception of tsunami activity. Many people imagine a tsunami as a wave (singular), something one could surf or dive through, big but hardly dangerous – especially given the initial data from the Chatham's indicating wave heights around 1.5 metres.



The following personal account reveals tsunami activity affecting the whole ocean at the shoreline and continuing for several hours after the arrival of the first wave. So, unlike a one metre surf wave which releases a small amount of localised energy as it breaks on the shore, tsunami activity affects all of the water in the area. As such it carries an enormous mass and force far in excess of any single wave. It is this that makes a tsunami so dangerous, irrespective of reported wave height.

Accounts like this are invaluable for informing the development of public messaging for exercises like Tangaroa, as well as real events.

Joe Nawalaniec considers himself lucky to be alive after he almost drowned in boiling quake-churned seas near Cape Turnagain in the Hawke's Bay on Sunday 28 February. Joe had mistakenly gone back into the water after he had been alerted to the tsunami – an action that could have cost him his life.

"One minute I was in shin-deep water and the next it was over my head, and the water just kept coming up and up and up. I was really worried. If it had got much higher I wouldn't have been able to fight against it," says the Carterton-based teacher.

Joe and partner Vicky Bullmore had travelled to the coast for a camping weekend. At 7am on Sunday morning they had a visit from a rural fire officer alerting them of the threat of a tsunami following the 8.8 magnitude earthquake that had struck Chile. Although they had received the warning they, along with other campers, mistakenly thought it was safe to return to the beach at 10am, two hours after the first wave was due to arrive.

"I figured there would only be a single small wave, if that. I was badly wrong. We went down to look for paua. When we got to the beach, it was low tide. You could see rock shelves and kelp that weren't there at the last low tide. I thought it would be easy pickings and went in. I was surrounded by rock when the water came back in. It happened so quickly. Everything was clear and placid then all of a sudden it became a spinning mass of milky, boiling water. I made a beeline for the shore, where I could see Vicky. I got roughed up on the rocks, but it was just little cuts and scratches," he said.

The couple sat and watched the ocean after he had made the beach safely. Both were astounded at the behaviour of the water.

"It was a once in a lifetime experience. When the water withdrew it was like huge rivers being sucked out to sea. We sat there for quite a while watching it happen over and over, and I reckon the difference between the peaks and the troughs was about four metres."

Joe now appreciates that tsunami is not just one wave but a series of waves that can behave quite differently depending on the location and terrain. And he would certainly not be heading back to the beach until an all clear has been given. ▲



Expert help for disaster relief

Former Department of Internal Affairs staff member, David Youngmeyer, was deployed to Samoa to assist with emergency relief following the recent tsunami. He reflects on the value of having done a RedR training course before disaster hit.

Less than two months after completing the RedR, New Zealand's Essentials of Humanitarian Practice (EHP) course, I was deployed to Samoa as part of the UN Children's Fund (UNICEF) emergency response team. RedR training provided invaluable preparation for this deployment.

I arrived in Apia just days after the deadly tsunami struck – the waves were later calculated to have been up to 14 metres above the ground in places and surging hundreds of metres inland. It was a major disaster for Samoa. Out of a population of 180,000, 143 people were killed, more than 600 injured and an estimated 15,000 people affected - the majority of them children.

Lessons from the five-day EHP course held at Burnham Military Camp near Christchurch were still fresh in my mind. These included understanding the UN cluster system, functions of various UN agencies, the importance of needs assessments, military-civilian co-operation, using a two-way radio and how to prepare for deployment and keep healthy in the field. I was now able to put what I'd learned into practice.

With a large number of UN agencies and NGOs, along with support from the New Zealand and Australian governments all converging on Samoa, the UN cluster system was a vital way to order relief efforts and identify gaps in the response. The UN Resident Coordinator oversaw the response, while cluster groups organised help around specific areas like water, sanitation and hygiene, education, protection and logistics.

I was part of a UNICEF health and education assessment team that headed to Manono Island, a relatively isolated island off the

Above: UNICEF staff member David Youngmeyer helps fill a 3,000 litre tank with water in preparation for distribution to displaced Samoan families.

coast of Samoa's main island of Upolu. We were able to hitch a ride with a Royal New Zealand Air Force helicopter that was ferrying aid equipment and personnel to and from the island. This not only saved time, but gave us a valuable aerial view of the damage. About ten per cent of the island was affected by the tsunami, with many homes and fishing boats damaged or destroyed along with a pre-school that would need to be completely rebuilt.

During the response, UNICEF specialised in the key areas of child protection, water, sanitation and hygiene, education, and health and nutrition. UNICEF supported the transportation of watertanks to thousands of families displaced by the tsunami. To avoid diarrhoeal disease it also provided water containers, soap, oral re-hydration sachets, and hygiene education information promoting hand-washing.

UNICEF and the World Health Organisation supported the Samoan Government to run a nationwide measles and vitamin A immunization campaign. After a disaster like a tsunami, it is easy for children to be more susceptible to disease. The campaign, which aimed to reach 32,000 children, reduced the likelihood of any individual measles cases spreading to other children, keeping the population safer in the disaster aftermath.

Having experienced aid work in an emergency, I cannot speak highly enough of the value of RedR's EHP course. It covered so much invaluable information, both high-level and practical. It is the ideal preparation for new humanitarian workers. Now that I am back, I'm re-reading the course manual from a completely new perspective. ▲



Samoan primary school children are issued materials from a UNICEF recreation kit. Photo: Tomas Jensen



A young child is immunized against measles as part of a UNICEF-supported nationwide campaign following the Samoan tsunami.



Access to clear water is vital following a disaster. A UNICEF staff member fills up a container with water during a tanker distribution to displaced families.

About RedR in New Zealand

Formed in the United Kingdom in 1980, RedR stands for Register of Engineers for Disaster Relief. RedR is an organisation to which relief agencies can apply when they require experienced and professional expertise from people such as engineers, administrators, logisticians and accountants to work in New Zealand or overseas in the aftermath of a disaster, whether natural or manmade.

RedR aims to supply these people at very short notice. RedR also gives technical advice to relief agencies on most aspects of disaster relief engineering.

RedR workers are frequently involved in restoring water supplies, basic sanitation and shelter, the repair of damaged roads and bridges and logistical support. In New Zealand and the Pacific where earthquakes, tsunamis and typhoons are a major threat, qualified people are required to guide the rescue of people from damaged buildings and to assess the buildings for repair or demolition. Administrators are needed to organise the procurement, storage and despatch of emergency food and material supplies as well as for accountants to cope with financial aspects.

RedR maintains a register of professional

specialists. People wanting to offer their services for assignment to disaster relief situations need to apply for acceptance.

Registration is through an application and interview process that aims to confirm the suitability and qualifications of applicants for the demands of disaster and emergency situations. It confirms that applicants are motivated and qualified to do disaster relief work in New Zealand and/or overseas. For more information, contact Richard Hunt on 07 343 1675 or visit the website www.redr.org.nz

New platform streamlines hazard research

In New Zealand there are numerous research agencies encompassing many disciplines. It is not surprising therefore that hazard research is frequently undertaken in a fragmented environment with much duplication of resources and overlapping themes.

This has resulted in some inefficiency and limited interagency cooperation. In an effort to strengthen connections across all disciplines of research relating to natural hazards, the idea of a common research platform was developed last year.

The Hazards Research Platform is a new approach to research funding by the Foundation for Research, Science and Technology (FRST) and it was officially established in November 2009. The agreed goals of the Platform are to:

- develop strengthened relationships between end-users and research teams
- develop strong connections across all disciplines of research relating to natural hazards
- align research with the strategic needs of Government, as reflected in key documents such as the National CDEM Strategy
- ensure research capabilities are maintained and developed over the life of the Platform
- improve transfer and uptake of knowledge resulting from the research.

Research supported by and aligned with the Platform will directly contribute to improved economic, infrastructural and social resilience to natural hazards in New Zealand. The science capability supported by the Platform will also be available to assist decision makers, such as CDEM Controllers, during significant hazard events.

Research themes

Research within the Platform is organised into the following interim themes reflecting existing FRST research contracts:

- geological hazard models
- predicting weather, flood, and coastal hazards
- developing regional and national risk evaluation models
- societal resilience (social, cultural, economic and planning factors)
- resilient buildings and infrastructure.

Providing clearly articulated themes



Understanding the nature of hazards through hazards research is a vital component of effective emergency management. In this instance GNS scientist, Dr Ken Gledhill, assists the national response to the recent Chile tsunami by providing advice from data collected by the Geonet monitoring network.

allows research projects to be carefully managed to maximise funding investment while minimising gaps and overlaps. The intent is also to provide greater cohesion and integration across research disciplines, especially between the physical, engineering and social elements of hazards research.

Who manages the Platform?

The Platform is essentially self-managed by senior researchers, with a Management Group formed from representatives of key Platform members. Current members include GNS Science and NIWA (anchor members with the majority of the \$14 million per annum funding), Auckland University, Massey University, Canterbury University, OPUS, and FRST as observers and advisors.

Several other research groups including other universities and consultancies, international partners and subcontractors are also involved.

A Strategic Advisory Group of key research users, including local government (currently Taranaki and Hawke's Bay), lifeline utilities, MED, EQC, MetService and MCDem, provides advice to the Management Group on research direction, and provides official endorsement of the research strategy.

The Platform is looking to broaden the membership of the Strategic Advisory

Group to include other government agencies with interests in hazards research outcomes.

What's happening now?

The Platform is in an interim or transitional stage, with existing research contracts rolled over until the first Platform research strategy is agreed and implemented in November 2010. The development process for this has been initiated by the Platform Manager, Dr Kelvin Berryman, formerly Programme Leader of the Geological Hazards and Society research Programme at GNS Science.

Research end-users will have the opportunity in the next few months to contribute feedback on the new research strategy as it evolves. In taking on responsibility for managing relationships and issues across a number of research organisations, the Platform Management Group will need to focus on several key issues.

These include developing processes for reallocation of funding within the Platform, reporting and accountability within research themes, facilitating integration across themes, and building effective relationships with research users.

For more information please contact Dr Richard Smith on 04 495 6838. ▲