Shaken

In February 2011, there was a large earthquake in Christchurch. A few weeks later, a very large earthquake in Japan caused a tsunami. This Collections book is about the experiences of some of the people involved in these disasters. It also has information about how to keep safe in an earthquake.

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Shaken

by Bill Nagelkerke

I was baking some cheese scones.
Then it happened. My house was picked up
and shaken by giant hands. I fell onto the floor.

"Not again!" I thought. "Not another earthquake!
Not another big one!"

I dived under the table. Drawers flew open.
Glass broke.

The earthquake didn't last long, but it seemed to go on forever.
At last, my house stopped shaking, but I didn't.

I was bruised but not badly hurt.

My television was strapped to the wall,
so it was still on the shelf. I pushed
the ON button, but there was no power.

I found my radio under some books.
I heard the words:

"… reports are coming in that the cathedral tower
has fallen down …"

Then I knew that this earthquake was bad.
It was far worse than the one in September.

Someone banged on my front door.
It was stuck. It wouldn't open.

"I'll try the back door," I called. It opened,
and I went outside.

At first, everything outside seemed normal.
Then I noticed the dirty grey **sludge** on the lawn.

A man came round the corner of my house.

"I'm Tom from next door," he said.
"I don't think we've met. I came to see
if you're all right."

"I think so," I said. "I'm better than my lawn."

"I'll come back to help you clean up later," he said. "I just want to check on the other neighbours."

I remembered the scones. "I'll come with you," I said.

I handed out warm cheese scones until they were all gone. It felt good to be with other people. This was not a time to be alone.

I will always remember the February earthquake.
It was destructive, frightening, and sad.
A lot of people died. Many people left the city.
A few people looted **abandoned** houses.
But most people helped each other.
That's the main thing I will remember.

illustrations by Rebecca Kereopa

The February aftershock in Canterbury in 2011

The February earthquake was an **aftershock** from another big earthquake in September 2010.
The February aftershock was smaller, but it caused more damage than the September earthquake.
It was closer to Christchurch city, and it wasn't as deep under the ground.

Date	4 September 2010	22 February 2011
Magnitude	7.1	6.3
Depth	11 km	6 km
Distance from Christchurch city centre	44 km west	6 km south-east
Time of day	4 a.m.	12.51 p.m.
Number of people killed	0	181

Glossary

abandoned	left alone
aftershock	an earthquake that follows a larger earthquake in the same area
epicentre	the point on the earth's surface above the focus of an earthquake
magnitude	the amount of energy released by an earthquake
sludge	thick, soft mud

How to Prepare for an Earthquake

by Julia Wall

Are you prepared for a major earthquake?
There are four key things you can do:

- Make your home quake safe.
- Prepare an earthquake survival kit and a getaway kit.
- Prepare an emergency plan.
- Know what to do in an earthquake.

Make your home quake safe

In an earthquake, heavy things can fall over.
You can make your home quake safe by making sure heavy things can't fall down. For example, you can:

- strap your television and hot water tank to the wall
- screw tall furniture to the wall studs
- move heavy items to lower shelves.

Prepare an earthquake survival kit and a getaway kit

Earthquake survival kit

After a big earthquake, you may not be able to get help right away. You may have no power or running water. The earthquake survival kit can help you survive for about three days.

You need:

- bottled water for drinking, washing, and cooking (You need at least 3 litres per person per day.)
- food (Canned food and food in packets are best because they last for a long time.)
- cooking equipment
- torches, a battery radio (for instructions and news), and spare batteries
- a first-aid kit, blankets, spare clothes, toilet paper, and rubbish bags.

Getaway kit

The getaway kit is in a small backpack that you can carry easily. This kit has a small number of the same items as the survival kit.

The getaway kit also has:

- copies of documents like birth certificates and passports
- personal medicine or items like a spare pair of glasses
- a change of clothes.

Prepare an emergency plan

An emergency plan has information about staying in touch and staying safe. You can use this plan after an earthquake or another emergency.

Prepare your emergency plan with your family. Discuss where you will meet after an emergency. Write it down.

Write down phone numbers for:

- family members
- your doctor and hospital
- electricity, gas, and water suppliers
- your council emergency helpline.

(Also record these numbers on your cellphone.)

Include instructions on how to turn off your gas, water, and electricity.

Keep a copy of your emergency plan inside your emergency survival kit.

Know what to do in an earthquake

If you are inside, stay inside.
Move to a nearby place that's safe from flying objects.
Then drop, cover, and hold.

Drop

DROP to your knees.

Cover

COVER your head with your hands if you are outside. If you are inside, move under a table. Or move against an inside wall away from windows and heavy furniture.

Hold

HOLD your head or the table leg.

For more information about being prepared, check out these websites:
www.getready.govt.nz/emergency/earthquakes

Rescue Worker

Turi Hodges talks to Rachel Hayward about his work in Urban Search and Rescue.

My name is Turi Hodges. I'm a firefighter. I also belong to New Zealand Urban Search and Rescue (USAR). After an earthquake, USAR finds and rescues people.

2011 has been a very busy year for us. In March, I was in Christchurch with USAR. We were helping after the earthquake.

Then on Friday, 11 March, there was a huge earthquake in Japan. It caused a tsunami. The waves were up to 10 metres high. On Monday, 14 March, my USAR team was sent to Japan.

Rescue Kits

When USAR teams go to rescue people, we have to take everything we need. We take tents, tools, search dogs, and food and water to last for three days.

We landed in Tokyo. Then we drove to the north-east coast of Japan. One of our jobs was to search a town called Minami Sanriku.[1]

The town was destroyed. When we arrived, there were only three buildings left standing. One was a school. There were dead fish on the roof. All the furniture had been washed away.

Before the earthquake, 17 000 people lived in Minami Sanriku. After the tsunami, half of them were missing. We searched Minami Sanriku for three days. We didn't find any survivors.

[1] There is a map of Japan on pages 18–19.

A view of Minami Sanriku, Japan, after the tsunami (24 March, 2011)

We were in Japan for ten days. It was hard. The weather was freezing – **minus 20 degrees Celsius** (–20°C) at night. There was no power, so we had to search with hand tools.

Sometimes I felt helpless – there was so much damage. So many people were hurt, and so many lives were lost. I wished I could do more to help.

There was a hospital near our campsite. I saved up sweets and chocolate from my **rations**. I took them to the kids at the hospital. They loved them.

International search and rescue officers look for survivors on 15 March, 2011.

I learnt a lot working in Japan. Sometimes it seemed hopeless. But the skills I had learnt in Christchurch helped me. When a job seems too big, just do what is in front of you. Just keep doing what you can.

I really admired the Japanese people I met while I was there. They were so brave.

The earthquake and tsunami in Japan in 2011

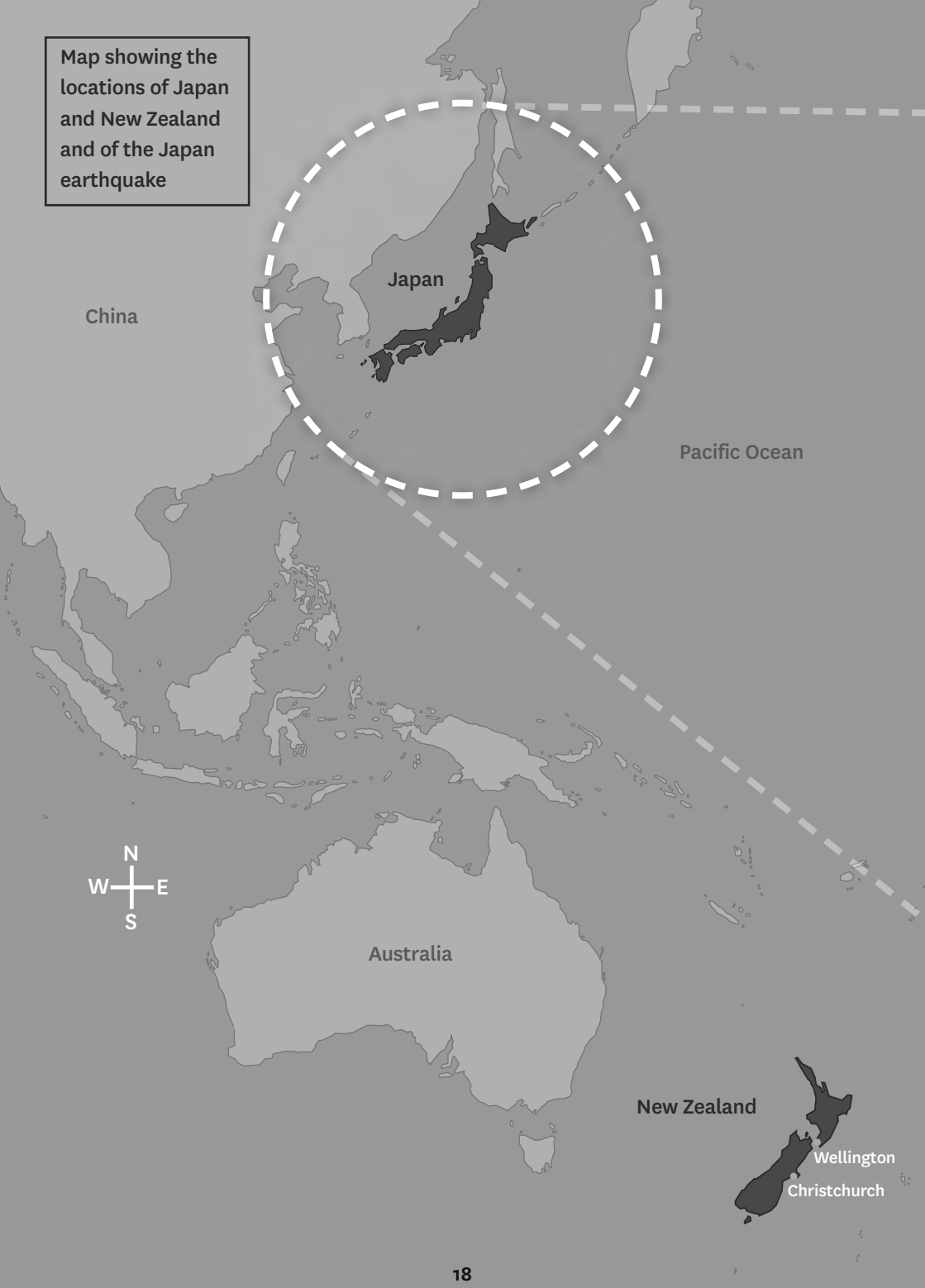
Thousands of people died in the earthquake and tsunami in Japan. The earthquake caused a tsunami with waves up to 10 metres high.

Date	Friday, 11 March 2011
Magnitude	9.0
Depth	24 km
Location	Near the east coast of Honshu, Japan. The tsunami hit the east coast.
Time of day	2.46 p.m. (local time)
Number of people killed	14 704
Number of people missing[2]	10 969

Glossary

minus 20 degrees Celsius	20 degrees below zero
rations	a set amount of food given to each person in the team

[2] At the time this book was published, people were still missing in Japan.



Map showing the locations of Japan and New Zealand and of the Japan earthquake

Japan
Hokkaido
Minami Sanriku
Honshu
Tokyo
Earthquake epicentre
Shikoku
Kyushu

Waiting for News

Turi Hodges' wife, Pania, talks to Rachel Hayward about waiting for news when Turi was away working with USAR.

Turi and Pania live in Wellington. They have four children.

After the 22 February earthquake, Turi went to Christchurch with USAR. He was there for nearly three weeks.

"Everyone was shocked about the Christchurch earthquake. Our family and friends wanted to know what Turi was doing and how he was," says Pania. "I got lots of phone calls and texts. It was nice but tiring!"

Turi called Pania most days, and Pania sent long emails to their friends and family. "I asked them to send Turi messages by text, email, and Facebook. He loved getting their messages, but he was too busy to reply."

"Then, after the tsunami in Japan, Turi called me," says Pania. "His USAR team was going over there. I was very worried. I knew a **nuclear power station** was damaged. Turi said he was going to be a long way from the power station. But I was still scared about **radiation**."

The numbers one, two, and three nuclear reactors at the Fukushima Daiichi nuclear power station in Japan.

The USAR **officials** in Japan called the New Zealand USAR officials every day. Then the New Zealand officials called the families of the rescue workers.

"The families had a **conference call** with the USAR officials every night at 5.30 p.m.," says Pania. "There were twelve of us on each call. We asked lots of questions. Were they safe? Did they have enough food? How cold was it?"

The phone calls made Pania feel better. "But the pictures on the news were bad. It was hard on the kids. We had some tears and some bad nights. Turi told me not to watch the TV."

Turi called home from Japan every few days.
"I had my cellphone with me all the time," Pania says.
Turi's phone calls were important. "It was good to hear his voice. As soon as I heard it, I knew he was OK."

Phoning home helped Turi too.
"I always felt better after I talked to Pania," he says.
"It kept me in touch with my normal life."

Glossary

conference call	a phone call between more than two people
nuclear power station	a power station that uses the heat from nuclear reactions to make steam, which is then used to make electricity
officials	people who have a special role in an organisation
radiation	rays of nuclear energy that make people sick

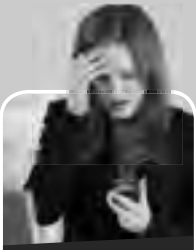
Communicating in a Crisis

by Rachel Hayward

In a crisis, we need news. What has happened? Are our family and friends safe?

But it can be hard to communicate in a crisis. After the February 2011 earthquake in Christchurch, most of the city lost electricity. Many people couldn't use computers or televisions. Many landline phones didn't work.

In this crisis, people communicated in many different ways.



Sarah

TXT Message

R u ok?
Where r u?
I'm at home.

Radio News

Earthquake, power out, and phone lines down.

TXT Message

I'm safe. Will walk home now.

Internet (using cellphone)

– Civil Defence
– News sites

Bill

Facebook (status update using cellphone)

Big quake in Chch. Sarah and I are ok. Chch friends, "like" this message to let us know you're safe.

Twitter

From: @billybuzz
Huge shake. Power out. Anyone need help?

Facebook

"Likes"

Twitter followers

Bill's Facebook friends

Radio

Radios were very useful in this emergency.
Battery radios don't need power.
They are often small and easy to carry.

Television

People with electricity could watch news about the earthquake on television. People in other parts of New Zealand could find out what was happening.

Cellphones

Many people used their cellphones to contact others. So many people made calls that the cellphone network got overloaded. People were asked to send texts, not make calls.

Internet

Many people could get the Internet on their cellphones or on their laptop computers.

Communication on the Internet is very quick.
A few minutes after the earthquake, people posted videos, pictures, and messages on Facebook, YouTube, and Twitter.

The Christchurch City Council posted news on its website.
It told people which streets were closed
and where to get water and help.

Google quickly set up a person finder website.
People could look for the names of missing friends
and family.

Face to face

Lots of people communicated the old way
– by talking face to face.
They checked on their neighbours.
They met in the street to talk about the earthquake.
They laughed and cried. They shared information.
They found out ways to help each other.
That's what communication is about
– however you do it.

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