

# California Tsunami Warning

Lessons Learned  
in Disaster Planning

By CINTA PUTRA

**A**fter a series of earthquakes and a tsunami warning in June hit the California coast, the panic that followed was a wake-up call. Large-scale disasters and emergencies can happen at a moment's notice.

Fortunately, while a tsunami did not occur and no lives were lost, the incident was a startling reminder to North America

that we are not immune to such disasters. All organizations must have a plan in place to effectively deal with such crisis.

According to state officials, Crescent City, Calif., was the only city capable of evacuating its 4,000 coastal residents when the tsunami warning was issued on June 14, 2005. It also was the only city that was declared prepared for a tsunami.

Crescent City officials had already planned for such an event after a 1964 tsunami destroyed half the waterfront business district and caused more than \$7.5 million in damages and the loss of 11 lives.

In addition, city officials had tools in place to help mitigate the situation, and had taken steps to educate their community on both the plan and the tools (in this case sirens). As a result, Crescent City was the only city that was successful in its evacuation efforts.

### Be Prepared When 'What If' Becomes 'What Is'

Had a tsunami struck that day, there would have been a narrow window of time to prevent significant fatalities. A half-hour

difference in executing evacuation orders can make the difference between destroying an entire community and saving it.

For example, experts predict if an earthquake hit the Catalina fault line and triggered a tsunami, the rushing water would hit the Port of Los Angeles in San Pedro, one of the largest container ports in the United States, in 15 to 20 minutes.

"This may give shippers enough time to evacuate dock workers and stop hazardous activities, such as cargo handling or offloading oil from tanker ships," said Jose C. Borrero, assistant research professor at the University of Southern California's Viterbi School. "Every second would count."

However, this is certainly not enough time for information to "trickle down," which is what happened in June. Even if an impending disaster allowed for more time to spread warnings, such an inconsistent communication system – if it can be called that – would not be sufficient. If we hope to have a true early warning capability, it is critically important that information instantly and accurately be disseminated on a mass scale.

## IT DOESN'T TAKE A CRYSTAL BALL

**... TO KNOW THAT SINCE MORE THAN HALF OF TODAY'S ORGANIZATIONS DON'T HAVE A BUSINESS CONTINUITY PLAN, THAT DISASTER THAT'S WAITING TO HAPPEN - IT COULD BE YOURS.**

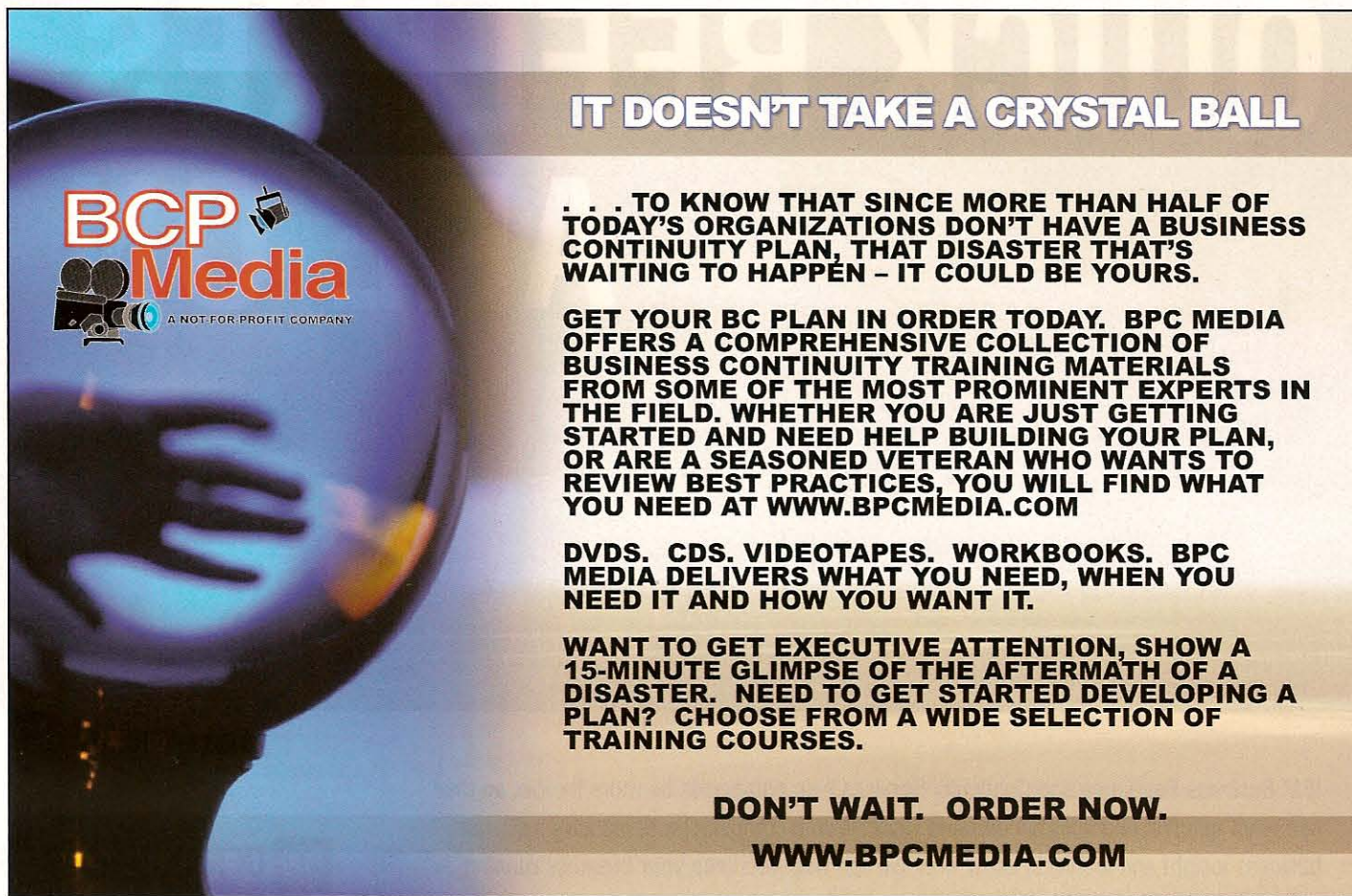
**GET YOUR BC PLAN IN ORDER TODAY. BPC MEDIA OFFERS A COMPREHENSIVE COLLECTION OF BUSINESS CONTINUITY TRAINING MATERIALS FROM SOME OF THE MOST PROMINENT EXPERTS IN THE FIELD. WHETHER YOU ARE JUST GETTING STARTED AND NEED HELP BUILDING YOUR PLAN, OR ARE A SEASONED VETERAN WHO WANTS TO REVIEW BEST PRACTICES, YOU WILL FIND WHAT YOU NEED AT [WWW.BPCMEDIA.COM](http://WWW.BPCMEDIA.COM)**

**DVDS. CDS. VIDEOTAPES. WORKBOOKS. BPC MEDIA DELIVERS WHAT YOU NEED, WHEN YOU NEED IT AND HOW YOU WANT IT.**

**WANT TO GET EXECUTIVE ATTENTION, SHOW A 15-MINUTE GLIMPSE OF THE AFTERMATH OF A DISASTER. NEED TO GET STARTED DEVELOPING A PLAN? CHOOSE FROM A WIDE SELECTION OF TRAINING COURSES.**

**DON'T WAIT. ORDER NOW.**

**[WWW.BPCMEDIA.COM](http://WWW.BPCMEDIA.COM)**



With a mass notification system, tsunami warning centers can send one message to all local authorities on the West Coast in the same amount of time it would take to communicate that message to just one organization. Using location enabled communication technologies, local authorities could pull up digital street maps of their areas of responsibility, draw a circle around areas at risk, and notify the affected population in those areas by any device within minutes.

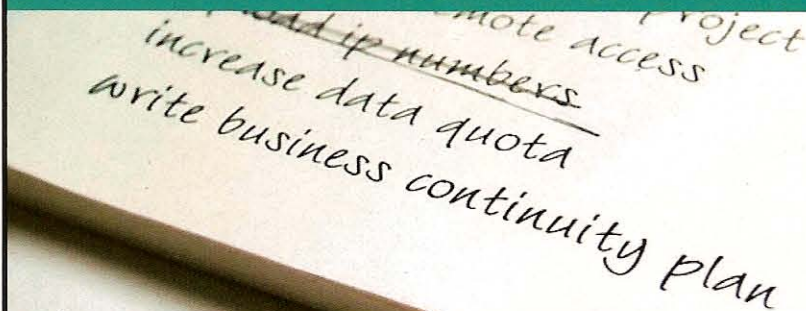
### Aftershock

On the corporate front, we can again look to the port in San Pedro and assess the ensuing crisis had a tsunami hit. Imagine the level of business interruption that would have occurred if one of the world's largest trading centers were hit by a natural disaster. Supply chain interruptions would have impacted countless businesses in the Western United States and beyond.

Since the June tsunami warning on the West Coast, many organizations and gov-

ernment agencies have begun to examine their disaster preparedness plans. The administrators of these plans must be able to send messages reliably on a number of issues, including safety checks for employees, notification updates on the state of the business, instructions for getting operations back on track, and recovery orders. Post-disaster messages should be sent to customers and vendors immediately after the crisis and in the following days, so all parties are aware of the latest changes and developments affecting the organization.

## MAKING SURE YOU COMPLY WITH THE NEW BUSINESS CONTINUITY RULES MAY BE AT THE BOTTOM OF YOUR TO-DO LIST...



## BUT IT'S AT THE TOP OF OURS.

Regardless of how busy you are with revenue-generating matters, it's critical to protect your enterprise. And considering NASD 3510/3520 and NYSE 446 rulings, having business continuity plans that get no further than your to-do list isn't just risky, it can be costly.

Sector BCP-Comply can help fast-track the development and implementation of your Business Continuity and Disaster Recovery Plans, saving you valuable staff time and resources. Your plan will be developed in the most cost-effective fashion by seasoned industry experts using industry best practices that address current regulations. We can customize it for your specific business and even create your own private Contingency Web Site for employees, customers, vendors and management.

**So cross contingency planning off your to-do list by turning to the experts who have been providing solutions to financial services firms for more than three decades.**

**For more information, call  
(866) 383-3315 or visit  
[www.sectorinc.com](http://www.sectorinc.com).**

**SECTOR**

A SIAC COMPANY™

Trust the Strength the Markets Trust™

### Complete Communications Plan

There are many details to account for in emergency and disaster recovery planning. Mass communications – the ability to communicate to many in a very short period of time – should be one of the requirements topping the list. The only way to influence, mobilize, and move more than a few people toward a specific outcome or goal is through communication. A clearly defined communication plan is especially critical during an emergency or disaster because of a few key factors:

- ◆ **Time:** In a crisis, seconds count – immediate action is required to prevent a situation from worsening. Enabling more timely communications will save lives and resources.
- ◆ **Scale:** Crises come in many sizes. In a large-scale crisis, the impact is typically very big, both in the number of people it affects as well as the geographic area it impacts. Since the only way to influence people, especially those dispersed over a sizeable area, is through communication, a scalable and prepared approach is critical in emergency situations.
- ◆ **Chaos and Panic:** Lack of information in emergencies tends to heighten chaos, and fear and uncertainty fuel panic among the public. Accurate and timely information tends to restore order, and a clear notification program can aid significantly in restoring the peace and preserving resources for critical functions.
- ◆ **Escalation:** Disasters often escalate beyond the event itself. For example, earthquakes can lead to gas leaks, which lead to fires, and so on. A multi-layered communications plan can help minimize the occurrence of cascading failures. This kind of communication requires planning, and would be near impossible to execute on a moment's notice and without the right tools in place.

- ◆ **Change:** An emergency unfolds moment by moment, whether it is related to a natural disaster or a power outage. Information about the development of a situation may vary minute-to-minute. The flexibility of your communications infrastructure and the ability to communicate new directions or strategies as soon as they are developed is critical in managing disasters and preventing them from escalating.
- ◆ **Aftermath:** The disaster or emergency itself may last merely minutes, yet the aftermath can last months or years. In managing the days and weeks after a crisis, businesses and communities need reliable communication plans to recover as quickly as possible.

### Execute Your Plan

During the tsunami threat warnings many West Coast communities faced in June, mass communication technology could have eased much of the burden of dealing with all the communication needs.

A mass notification system will streamline the communication needs of a community or business facing inclement weather. Once the earthquakes occurred in California and a tsunami was predicted, the Pacific Tsunami Warning Center in Hawaii had no efficient way to communicate with all the local authorities. Disparate response systems exist because there is no uniform state-wide plan in California for such warnings (even counties do not have such plans). Reports of the possible tsunami trickled down from regional emergency centers to local communities through various communication channels and at different speeds, which often resulted in messages losing accuracy in the translation process.

The response to the warning was inconsistent and inefficient. The fact that most individuals in the affected areas awoke the next morning with no knowledge of the warning is proof that communication plans are not where they need to be. The reality is that even the local authorities had no effective way to communicate warnings and instructions to the public. Though the siren worked for Crescent City, law enforcement officials in other communities were still forced to drive up and down the coast to warn residents.

Because emergencies and disasters come in many shapes and sizes, and the impact is often felt in a very large geo-

graphic area, an emergency communication system should not be physically located within an organization. It needs to be a hosted solution, dispersed over several geographic locations, and be accessible anytime, anywhere.

The system must offer certain features and functionalities; for example, it should not require the user to send separate messages to different types of communication devices. In an emergency, there may not be time to send voice notifications via phone, and then type messages into a text box for SMS devices, e-mail, and so forth.

The system must be intuitive and easy to use. A user should be able to quickly and easily determine how to send a message with little or no training – no user will want to complete 10 complicated steps before sending a message.

The best notification programs will go beyond standard notifications and enable recovery professionals to conference together key individuals quickly. Proactive conference calling functionality can be utilized to devise tactical plans and discuss recovery strategy for continuous, consistent execution.

As important as features are, capacity and throughput are just as important. In a real disaster, there will only be a short window of time in which warnings can be distributed for maximum impact. In those few moments, an organization must have the capacity to reach the thousands that need to be notified, regardless of whether they are at home or work.

### Learning From The Past

The tsunami warning in California was just a reminder of the gravity and immediacy with which disaster can strike. It doesn't have to be a tsunami – all of the above strategies apply to dealing with the aftermath of a hurricane, earthquake, terrorist attack or even a fire. Emergency notification plans are a vital component to communicating warnings before a crisis, and in its aftermath to manage the situation as it unfolds.



◆  
Cinta Putra is the CEO and co-founder of 3n (National Notification Network), a provider of mass notification systems. She has been recognized as a top expert in recovery efforts after the Southeast Asia tsunami.

For more information, please visit [www.3nonline.com](http://www.3nonline.com) or contact Putra at [cinta.putra@3nonline.com](mailto:cinta.putra@3nonline.com).

## FOLLOW - UP

# Issues and Challenges From Indian Ocean Tsunami

By MASLINA DAUD, ABCP

On Dec. 26, 2004, at 00.59 GMT, a 9.3 magnitude earthquake occurred on the seafloor near Aceh in northern Indonesia. This was followed by a series of earthquakes that caused a tsunami in the area of the western coast of North Sumatera, Andaman Islands and Nicobar Islands and swept over the South and Southeast Asia region reaching the shores of East Africa. Even though disasters tend to be localized events, this tsunami disaster proves otherwise.

According to the BBC, this disaster which cost about 300,000 lives has affected many countries. Indonesia, Thailand, Sri Lanka and Maldives were badly hit as highly-populated coastal areas were swept away by the giant waves. According to Gerhard Berz, a top risk researcher at Munich Re, the tsunami devastation has caused economic damage of more than \$10 billion euros. In the aftermath, millions of victims faced not only losing households, livelihoods, and well-being but also increased risks from disease and starvation.

Months after the disaster, there are still many questions left unanswered.

### 1. Establishment of Early Warning System (EWS)

The immediate reactive plans that were being thoroughly discussed amongst those affected countries is the establishment of a regional early warning system (EWS). It is very well noted that having a regional EWS in the Indian Ocean like what has been installed in the International Pacific