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# *What's the difference between ERM and BCM ?*

27 April 2011

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## ***What is Enterprise Risk Management?***

Enterprise Risk Management is a **process**, effected by **an entity's board of directors**, management and other personnel, **applied in strategy setting** and across the organisation, designed to **identify potential events** that may affect the entity, and manage risk to be within its **risk appetite**, to provide **reasonable assurance** regarding **the achievement of entity objectives**.

Committee of Sponsoring Organisations (September 2004)

For a risk management framework to add value, it must:

- ❖ reduce risks
- ❖ increase potential opportunities
- ❖ reduce overall uncertainty

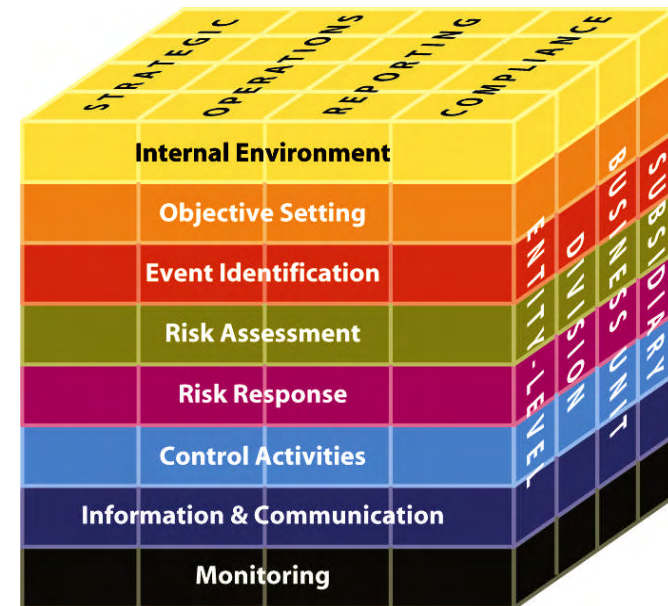


to levels that match the Board and management's appetite for risk.

## ***COSO enterprise risk management***

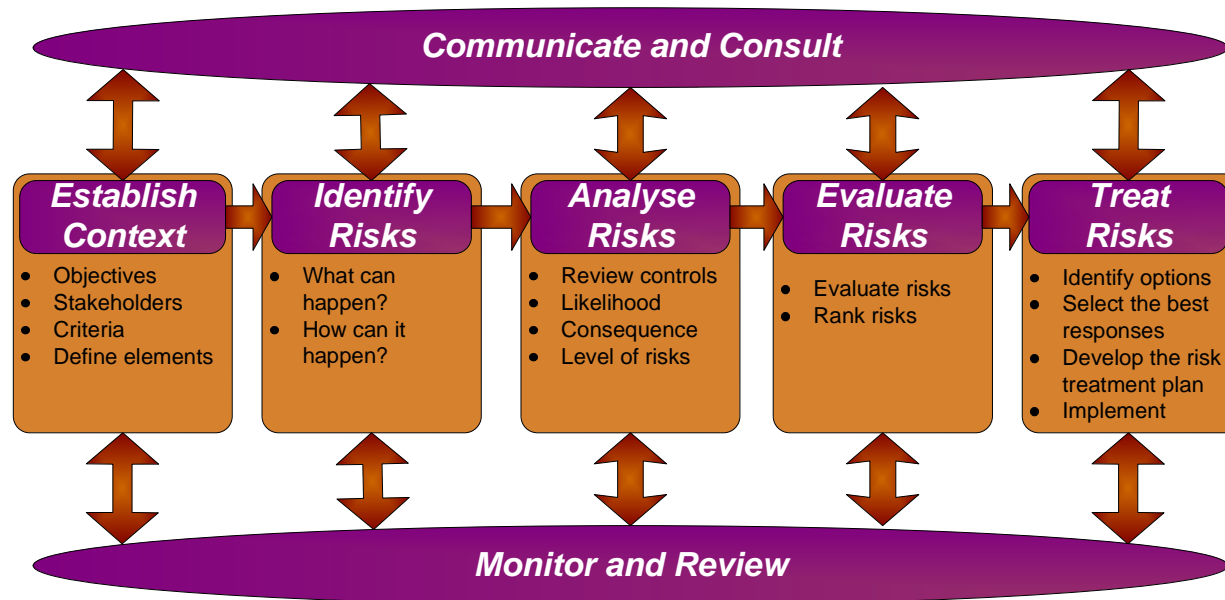
**Enterprise risk management consists of eight interrelated components:**

1. Internal Environment
2. Objective Setting
3. Event Identification
4. Risk Assessment
5. Risk Response
6. Control Activities
7. Information and Communication
8. Monitoring



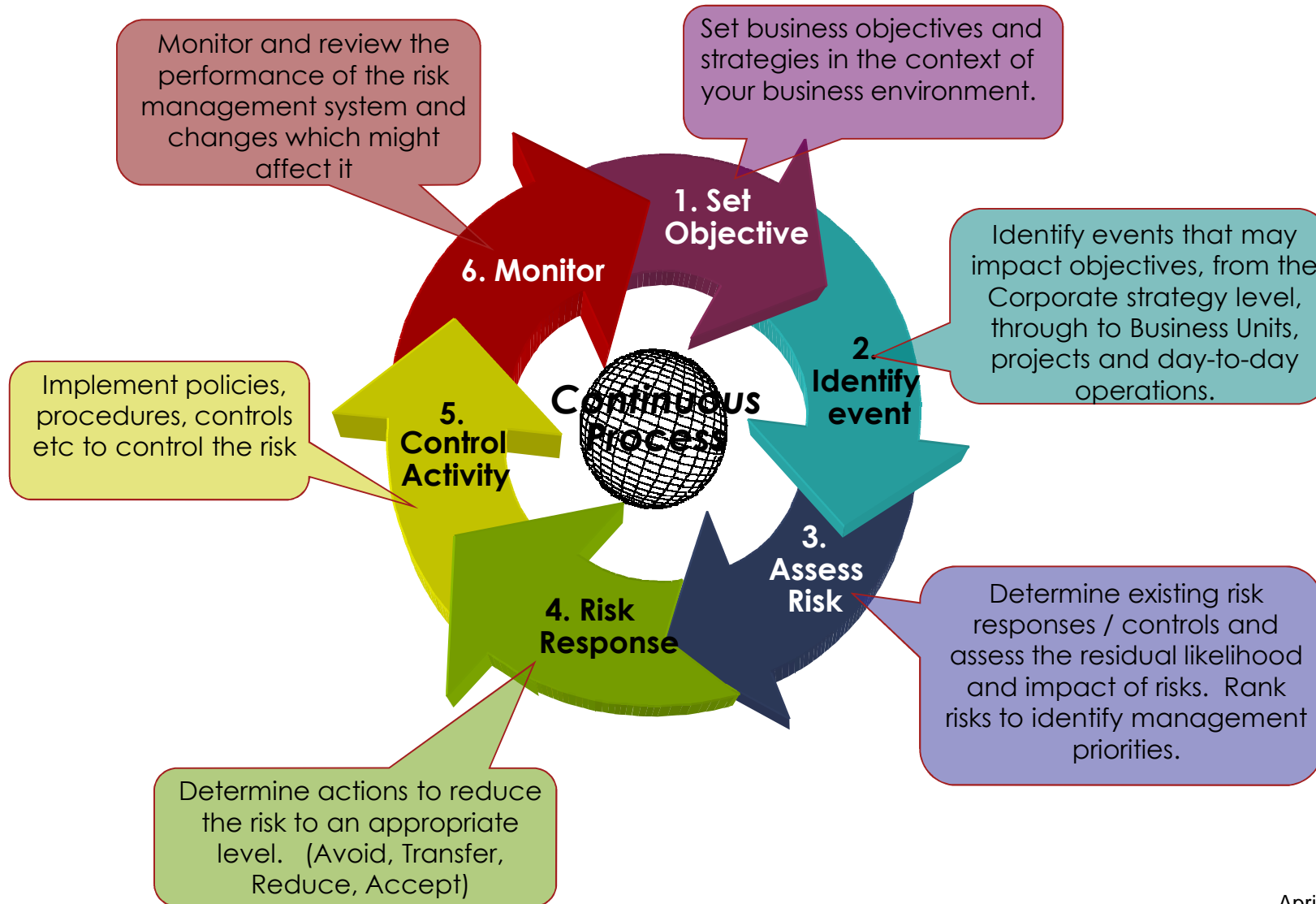
# Risk management—Principles and guidelines AS/NZS ISO 31000:2009

**Risk Management** refers to the architecture (principles, framework and process) for managing risks effectively



**Risk Management Process** is the systematic application of management policies, procedures and practices to the tasks of communicating, establishing the context, identifying, analysing, evaluating, treating, monitoring, and reviewing risk”

# Risk Management process involves 6 steps



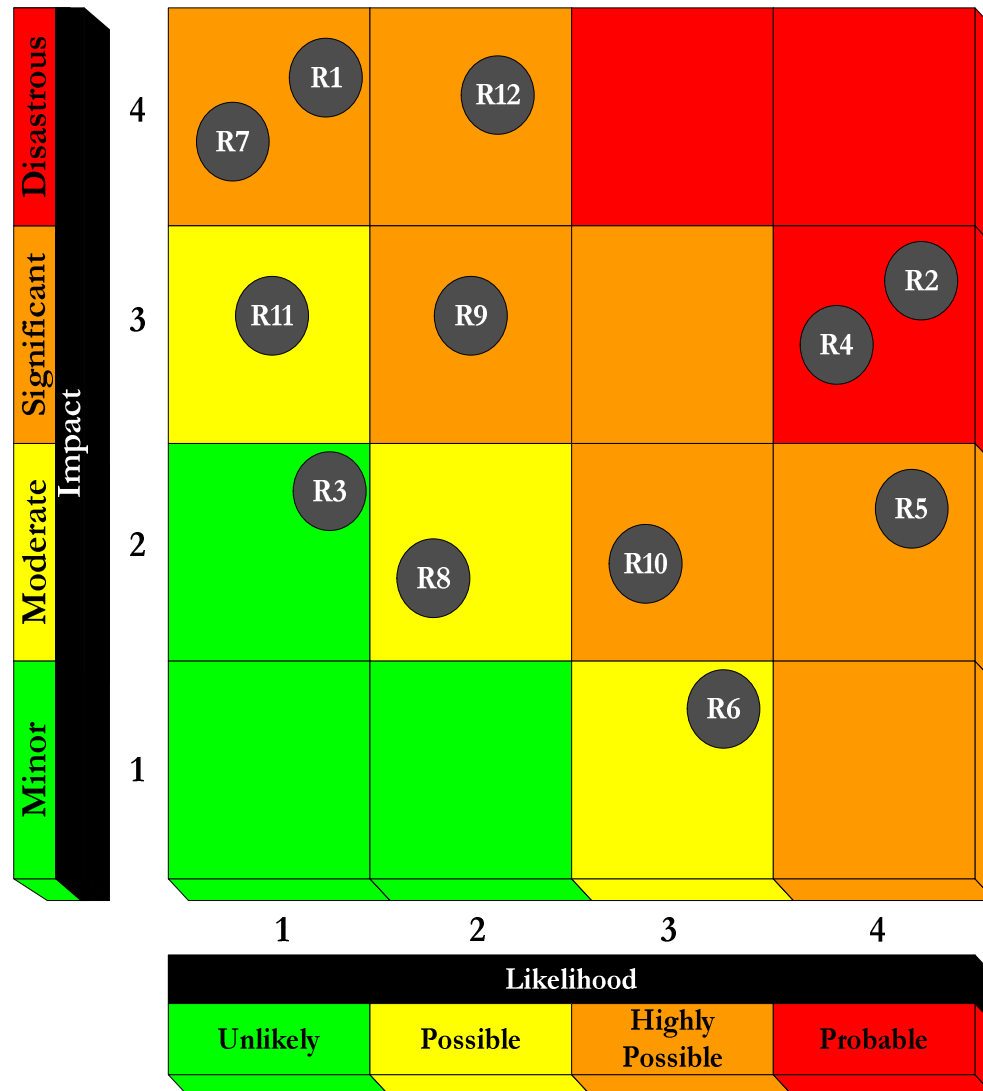
# Business Risk Model

Illustrative Only

Strategic	Financial	Operational	Compliance
Political / Country	Forex	People	Regulatory
Branding	Funding	IT	Financial and tax reporting
Business Development	Fraud / Pilferage/ Corruption	Procurement	
Economic / Market	Interest Rate	Product & Services	
Tax planning	Credit Risk	Contracts	
Competitors		Project risk – delays, cost overruns etc	
Investor relations		<b>Business Disruption</b>	

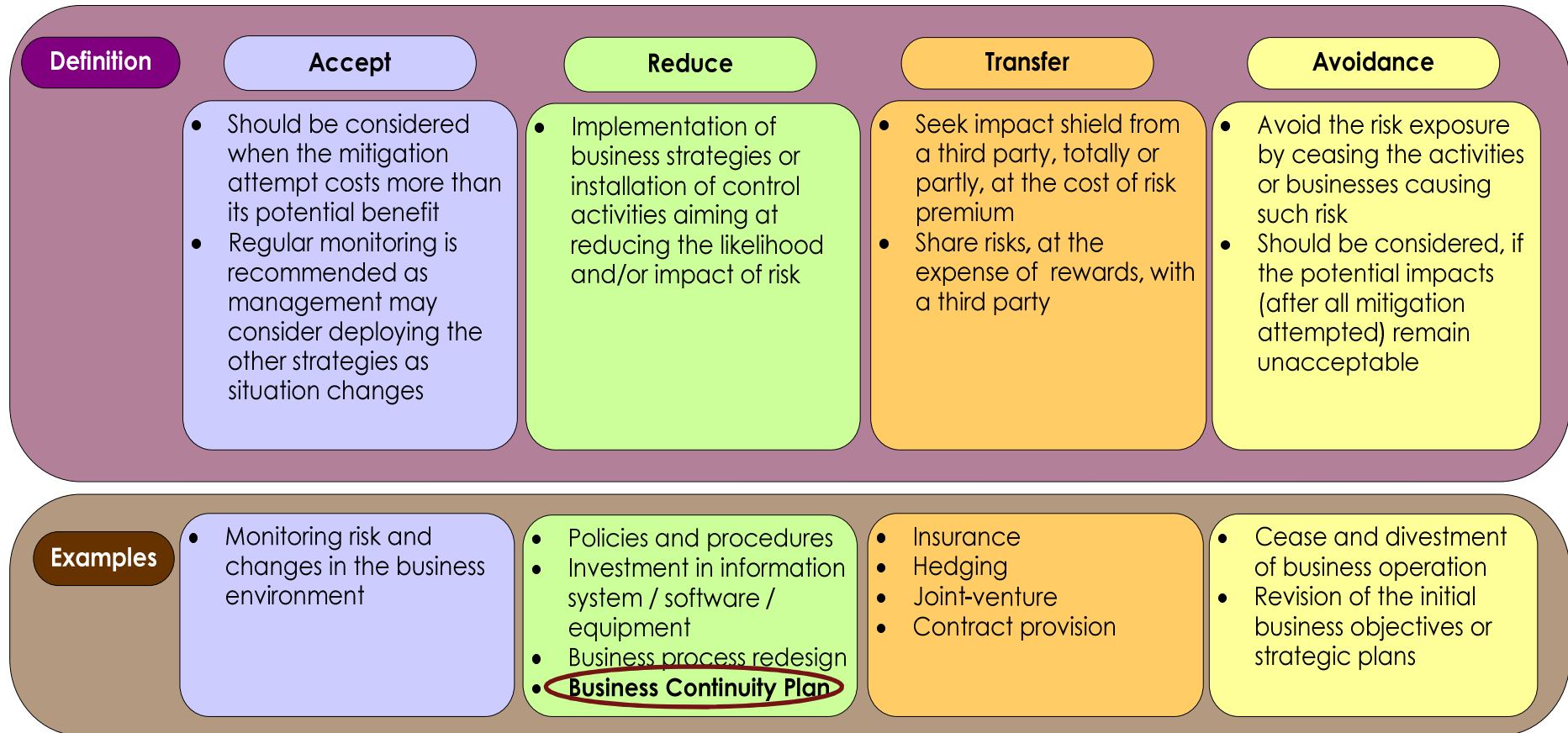
Sample Risk Categories

# Risk Map



- R1 Inadequate customer retention strategies
- R2 Increased service capability of competitors
- R3 Failure to implement system improvements
- R4 Inaccurate billing & reporting to customers
- R5 Unplanned Procurement / shipping delays
- R6 Selection of suppliers does not result in cost effective and timely solutions
- R7 **Business Disruption/Natural Disaster**
- R8 Failure to retain key staff
- R9 Fluctuate foreign exchange rate
- R10 Unrest in the south of Thailand
- R11 Government instability
- R12 Changes in internal structure

# Risk Response



- There is no “Fit-for-all” risk response strategy.
- Considering the approach suggested above, management may integrate several risk response strategies suggested (reduce, accept, avoid, and transfer) to effectively mitigate risks.



# BCM Action Plan

Crisis Management				Recovery					Restoration				
				Business Recovery			Disaster Recovery						
Reputation	Systems	Physical Infrastructure	People	People	Location / Resources	Procedures	Applications	Technical Infrastructure	Data Recovery	People	Systems / Infrastructure	Location / Supplies	Procedures

*BCM : Japan Tsunami*



April 2011  
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## ***Japan Tsunami Sequence of Events***

### **11 March 2011**

14:46 Earthquake of magnitude 9.0 struck Easter Coast of Japan

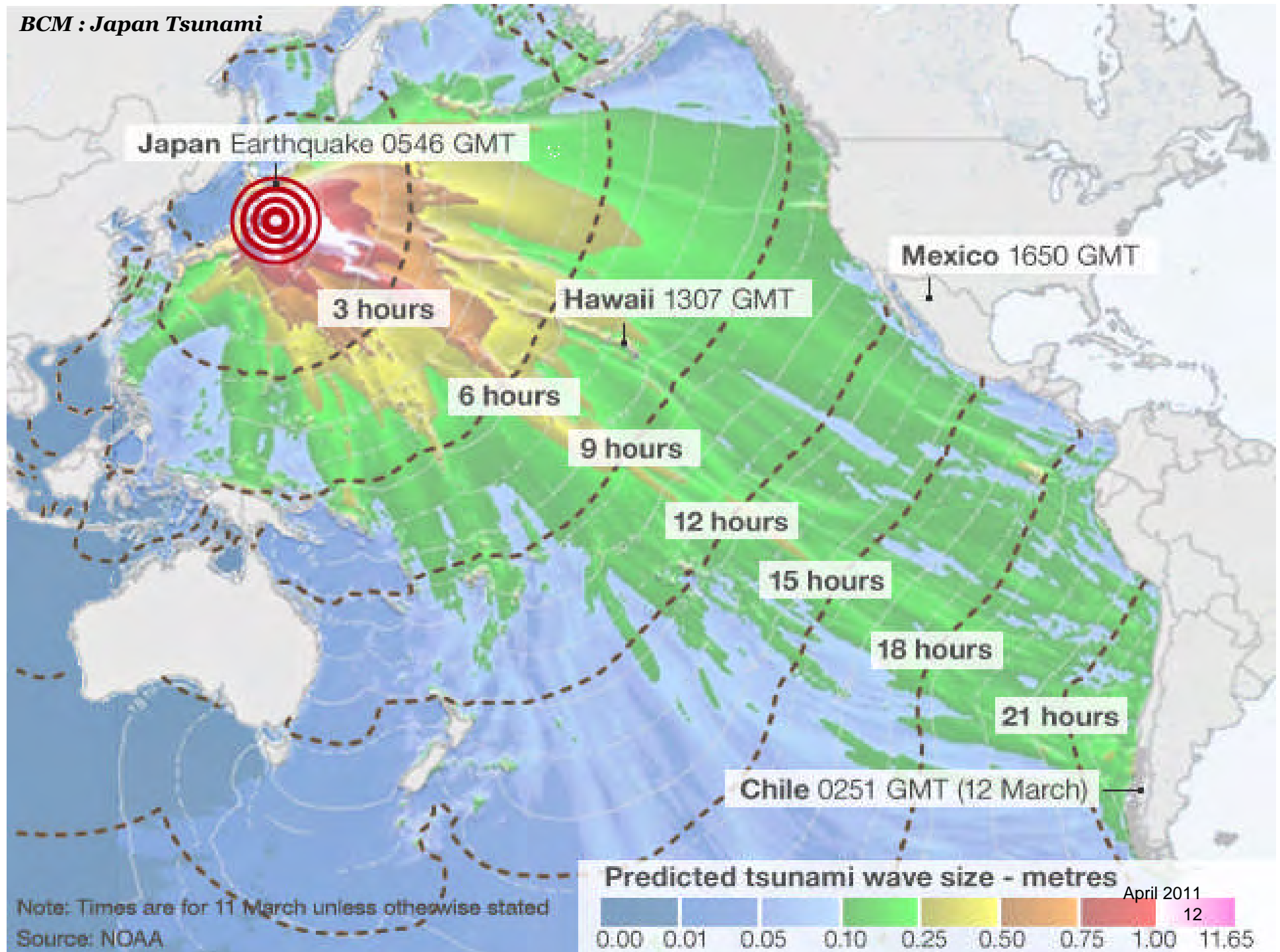
15:12 Tsunami hit Japan East Coast

15:30 Japan Shuts down 5 nuclear reactors

16:00 Tsunami warnings across Pacific cost

16:00 Fears of Nuclear Radiation

**BCM : Japan Tsunami**





# Pacific Tsunami Warning Center



Home News Organization Search for:   NWS  All NOAA

Local forecast by "City, St" or Zip Code

City, St

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Click on the tabs below to see tsunami messages relevant to each of PTWC's [areas of responsibility](#).

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[Caribbean Sea](#)

Page last loaded at: Thu, 24 Mar 2011 14:36:49 UTC.



## No Current Warning, Watch, or Advisory in Effect

[Click here to read the latest tsunami message.](#)

### Tsunami Messages for All Regions (Past 30 days)

Click on the map or table below for more information.

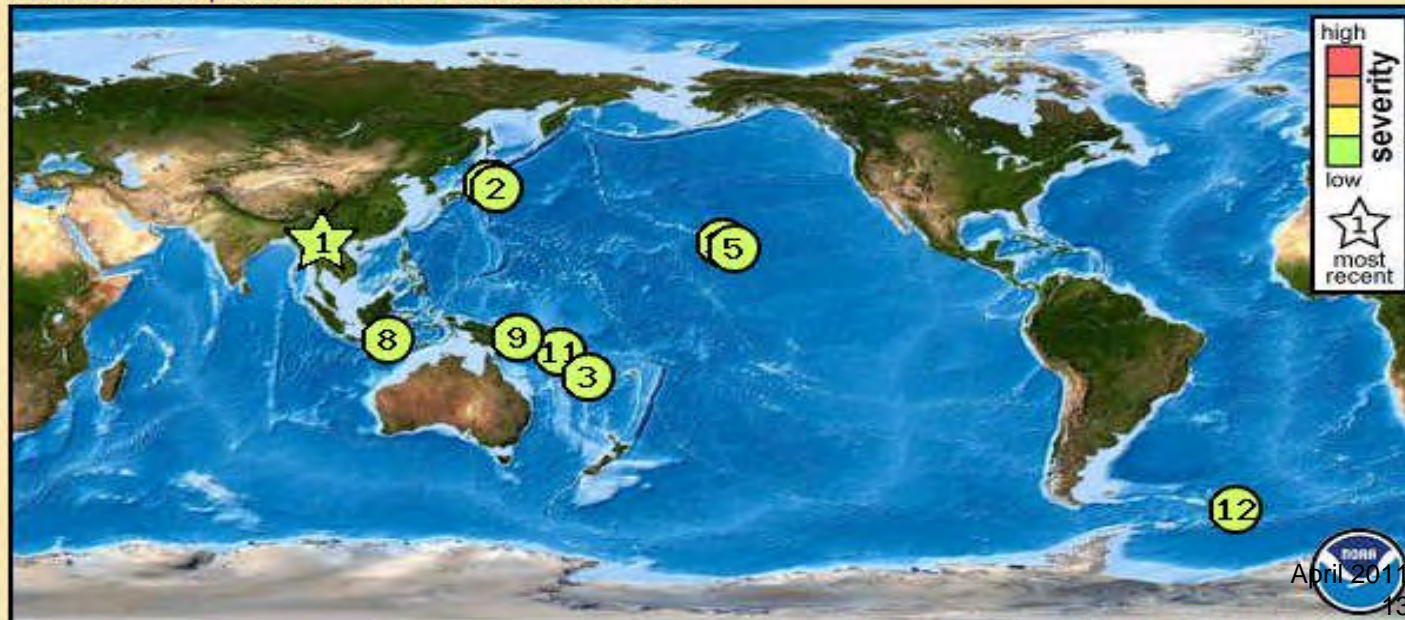
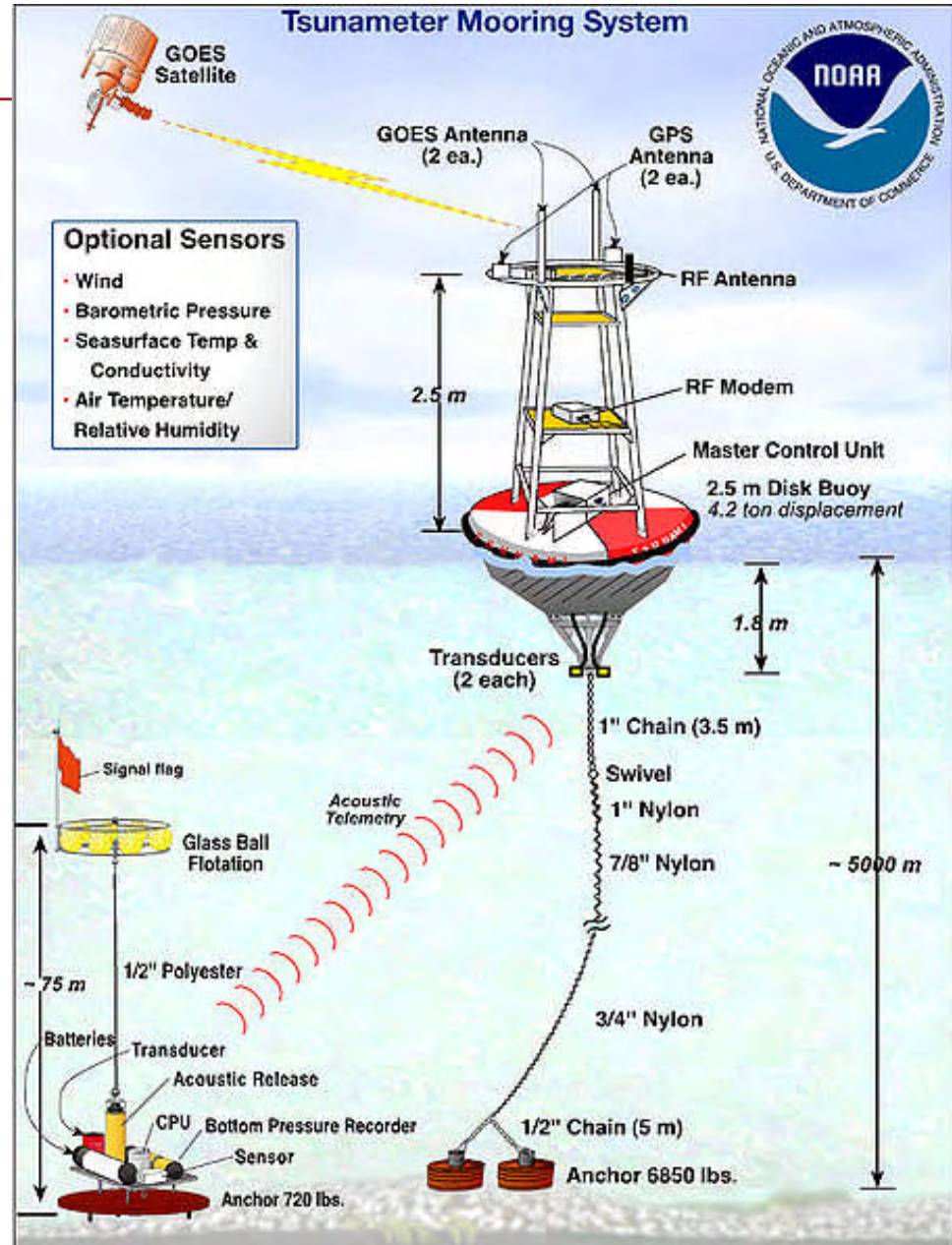


Image last created on Thu, 24 Mar 2011 14:34:39 UTC.

**BCM : Japan Tsunami**

	<b>Time (UTC)</b>	<b>Region</b>	<b>Type</b>	<b>Details</b>
1	22 Mar 2011 07:38	Off East Coast of Honshu, Japan	Information Bulletin	<a href="#">html</a> , <a href="#">text</a>
2	17 Mar 2011 02:56	Vanuatu Islands	Information Bulletin	<a href="#">html</a> , <a href="#">text</a>
3	12 Mar 2011 06:36	Near East Coast of Honshu, Japan	Fixed Regional Warning Cancellation	<a href="#">html</a> , <a href="#">text</a>
3	12 Mar 2011 05:40	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	12 Mar 2011 04:36	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	12 Mar 2011 03:39	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	12 Mar 2011 02:39	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	12 Mar 2011 01:39	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	12 Mar 2011 00:40	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	11 Mar 2011 23:37	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	11 Mar 2011 22:39	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	11 Mar 2011 21:38	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	11 Mar 2011 20:37	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	11 Mar 2011 19:38	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	11 Mar 2011 18:54	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	11 Mar 2011 18:32	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	11 Mar 2011 17:32	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	11 Mar 2011 16:38	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	11 Mar 2011 15:32	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	11 Mar 2011 14:32	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	11 Mar 2011 13:32	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	11 Mar 2011 12:30	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	11 Mar 2011 11:32	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
3	11 Mar 2011 10:30	Near East Coast of Honshu, Japan	a Widespread Warning is in Effect	<a href="#">html</a> , <a href="#">text</a>
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3	11 Mar 2011 06:43	Near East Coast of Honshu, Japan	Expanding Regional Warning Supplement	<a href="#">html</a> , <a href="#">text</a>
4	11 Mar 2011 05:55	Near East Coast of Honshu, Japan	Expanding Regional Warning	<a href="#">html</a> , <a href="#">text</a>
5	09 Mar 2011 21:33	New Britain Region, P.N.G.	Information Bulletin	<a href="#">html</a> , <a href="#">text</a>
6	09 Mar 2011 03:57	Off East Coast of Honshu, Japan	Information Bulletin Supplement	<a href="#">html</a> , <a href="#">text</a>

**BCM : Japan Tsunami**



*BCM : Japan Tsunami*

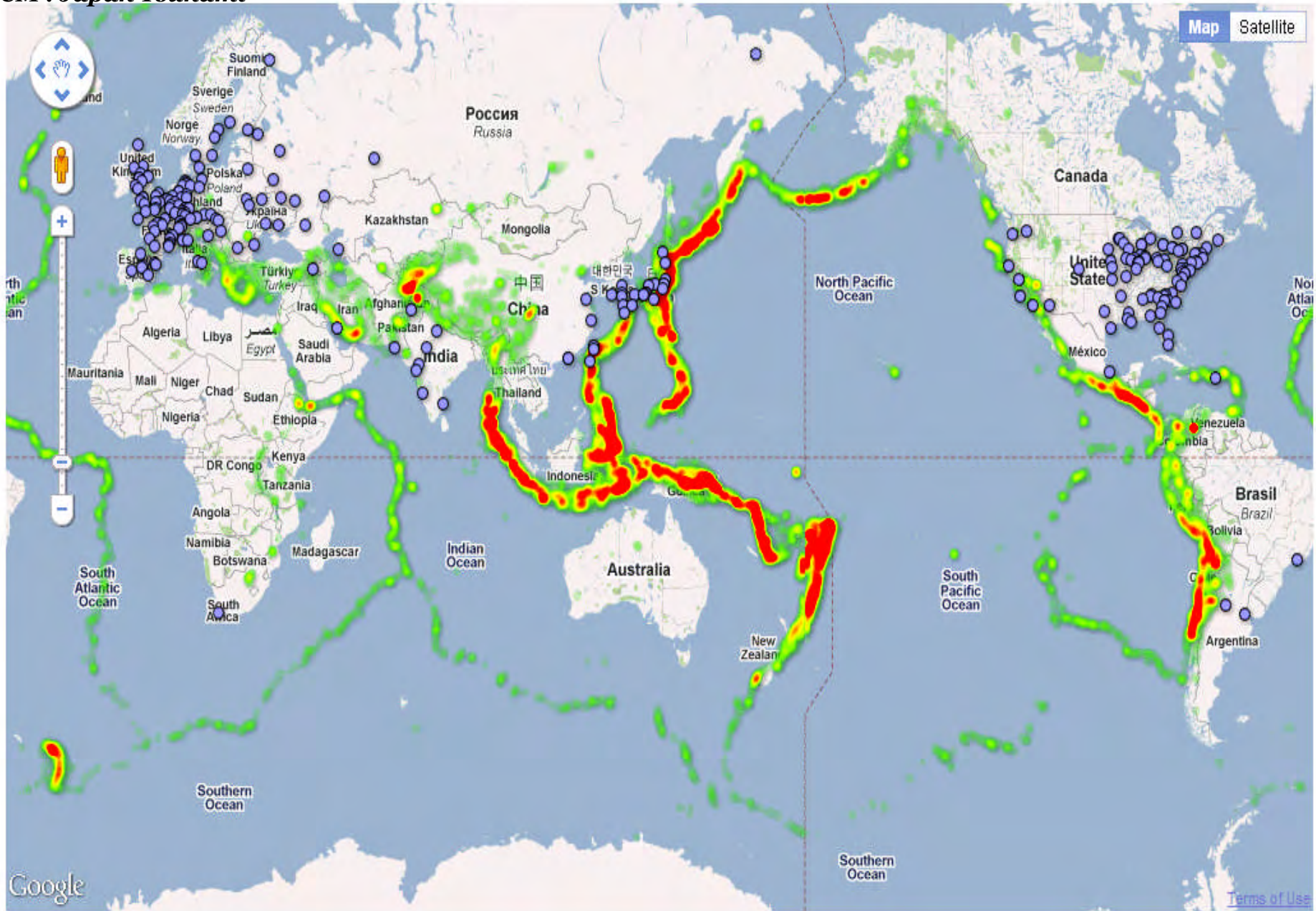


Sources: WSJ reporting;  
Chunghwa Telecom

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**BCM : Japan Tsunami**

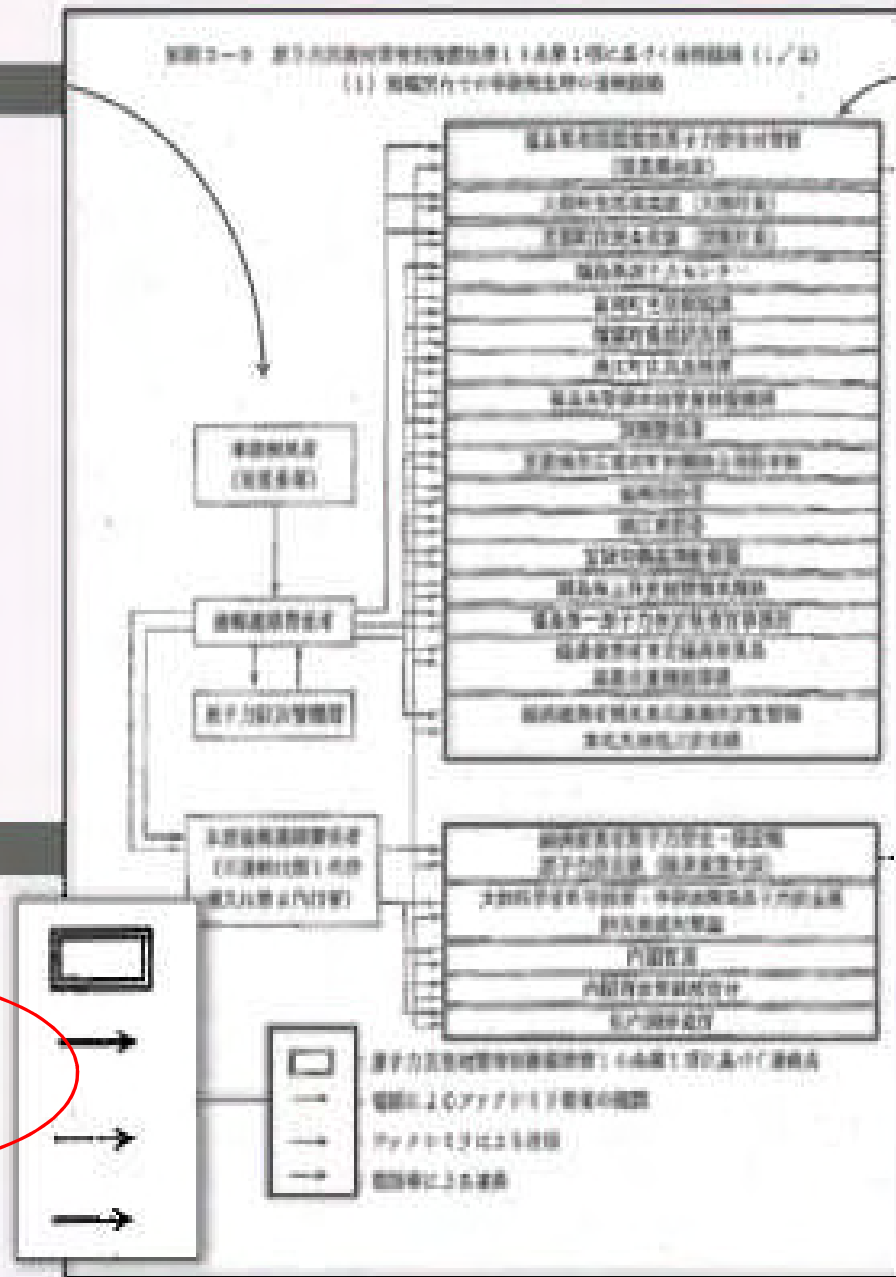


**Activating the plan**

The person who discovers the accident alerts Fukushima Daiichi's communications chief, who alerts the disaster-management head and Tepco headquarters in Tokyo. This flow chart shows the outside bodies Tepco should contact.

**Key to communication**

- Must be informed
- Call to confirm
- Receipt of fax
- Contact by fax
- Contact by phone



**Agencies to fax and call**

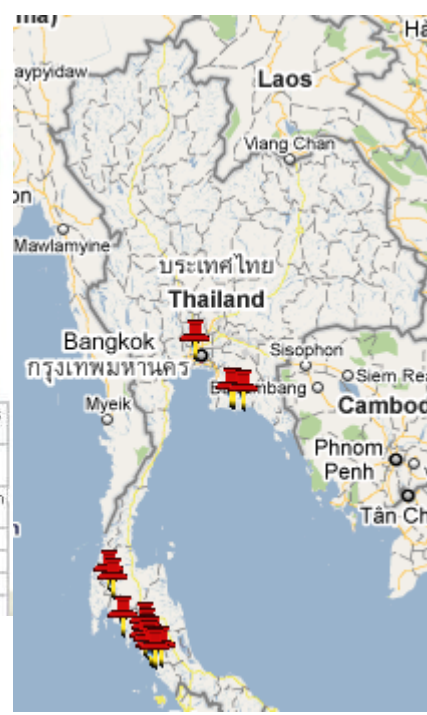
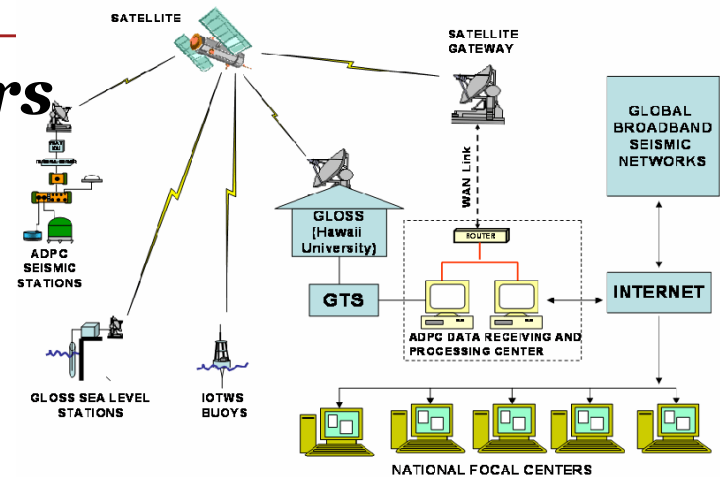
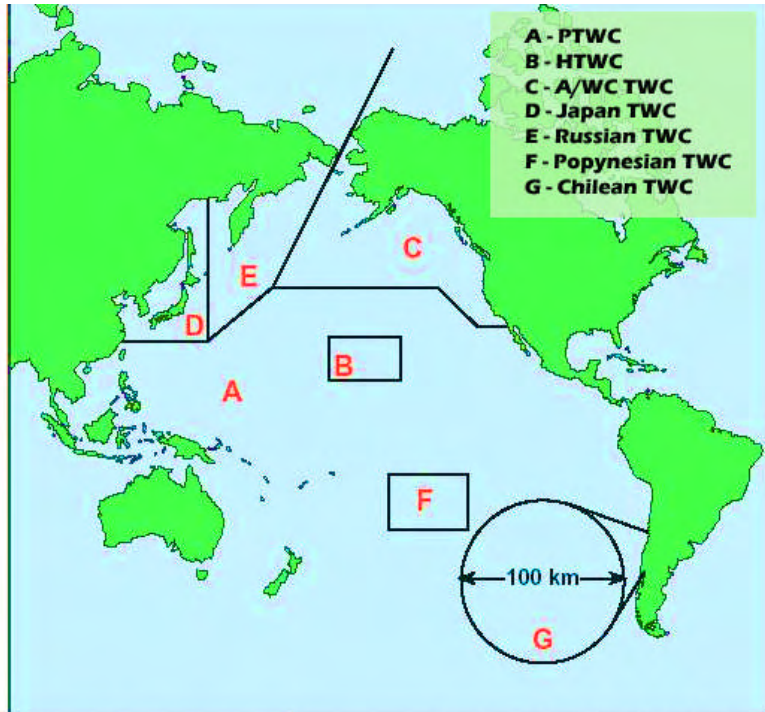
The list includes 17 local-government agencies, including nearby police and fire departments, as well as the nuclear inspector's office for the plant.

These are national regulators and groups including the Cabinet to be contacted by Tepco headquarters.

## Sample Tools in Thailand

หน่วยงาน / เครื่องมือ	คำอธิบาย
กรมป้องกันและบรรเทาสาธารณภัย (ก.มท.)	มีภารกิจหน้าที่ในการจัดทำแผนแม่บท วางมาตรการ ส่งเสริมสนับสนุน การป้องกัน บรรเทา และฟื้นฟูจากสาธารณภัย โดยกำหนดนโยบายด้านความปลอดภัย สร้างระบบป้องกัน เตือนภัย ฟื้นฟูหลังเกิดภัย และการติดตามประเมินผล เพื่อให้หลักประกันในด้านความมั่นคงปลอดภัยในชีวิตและทรัพย์สิน
ศูนย์เตือนภัยพิบัติแห่งชาติ (ก.ไอซีที)	ศูนย์เตือนภัยพิบัติแห่งชาติเป็นศูนย์กลางด้านภัยพิบัติทางธรรมชาติให้มีการระบบการสื่อสารที่มีคุณภาพในทุกสถานการณ์และมีขีดความสามารถเพื่อควบคุมและสั่งการในภาวะวิกฤตและแจ้งเตือนภัย
มิสเตอร์เตือนภัย	โครงการเครือข่ายอาสาสมัครเตือนภัยภาคประชาชน
กรมอุตุนิยมวิทยา (ก.ไอซีที)	พยากรณ์อากาศครอบคลุมทั้งประเทศ และออกคำเตือนอย่างมีประสิทธิภาพ ถูกต้อง แม่นยำ ทันเหตุการณ์ เพื่อตอบสนองต่อการบริหารจัดการในการลดการสูญเสียจากภัยธรรมชาติ
สำนักเฝ้าระวังแผ่นดินไหว กรมอุตุนิยมวิทยา (ก.ไอซีที)	ตรวจและวิเคราะห์แผ่นดินไหวทั้งภายในและต่างประเทศ โดยมีเครือข่ายสถานีตรวจแผ่นดินไหวแบบอัตโนมัติ สถานีตรวจวัดอัตราเร่งของพื้นดิน สถานีวัดการเคลื่อนตัวของเปลือกโลก และสถานีวัดระดับน้ำทะเล ติดตั้งอยู่ทั่วประเทศไทย

# Tsunami Warning Centers

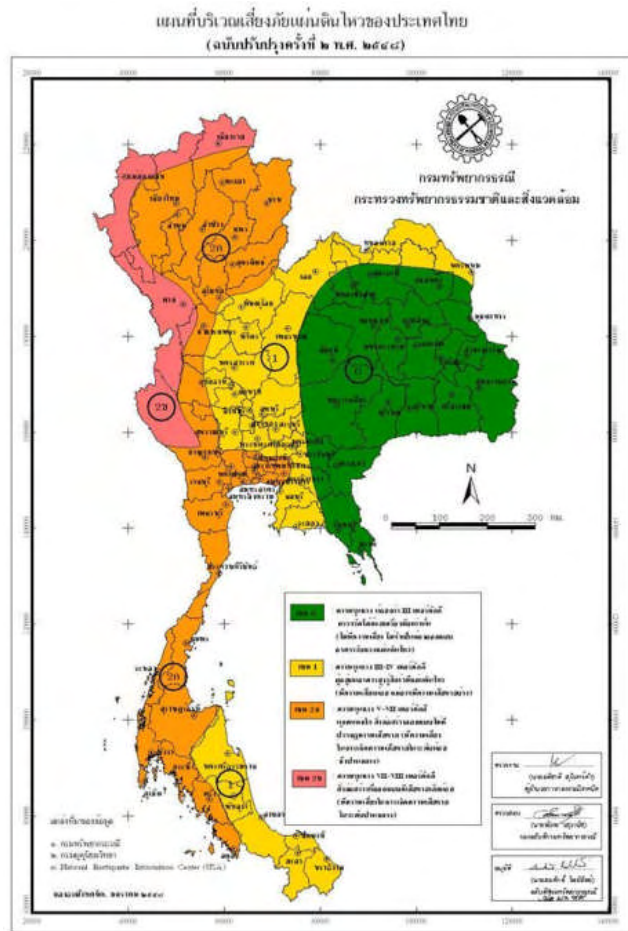


PTWC	Pacific Tsunami Warning System	ระบบเตือนภัยคลื่นยักษ์สึนามิในภาคพื้นมหาสมุทรแปซิฟิก
HTWC	Hawaii Tsunami Warning Center	ระบบเตือนภัยคลื่นยักษ์สึนามิ สหรัฐอเมริกา ประเทศสหรัฐอเมริกา
W/C/A TWC	U.S. West Coast/Alaska Tsunami Warning Center	ระบบเตือนภัยคลื่นยักษ์สึนามิ ชายฝั่งตะวันตก/อลาสกา ของประเทศสหรัฐอเมริกา
Japan TWC	Japan Tsunami Warning Center	ระบบเตือนภัยคลื่นยักษ์สึนามิ ประเทศญี่ปุ่น
Russian TWC	Russian Tsunami Warning Center	ระบบเตือนภัยคลื่นยักษ์สึนามิ ประเทศรัสเซีย
Polynesian TWC	Polynesian Tsunami Warning Center	ระบบเตือนภัยคลื่นยักษ์สึนามิ หมู่เกาะโพลินีเซีย
Chilean TWC	Chilean Tsunami Warning Center	ระบบเตือนภัยคลื่นยักษ์สึนามิ ประเทศชิลี

Source: <http://tsunami.learn.in.th/>, <http://www.disaster.go.th/>

หอเตือนภัยคลื่นยักษ์สึนามิ บนหาดป่าตอง จังหวัดภูเก็ต คอยส่งสัญญาณเตือนภัยให้กับประชาชนและนักท่องเที่ยวที่อยู่ในบริเวณหาดแห่งนี้

# Thailand risk-prone areas



มิสเตอร์เตือนภัย

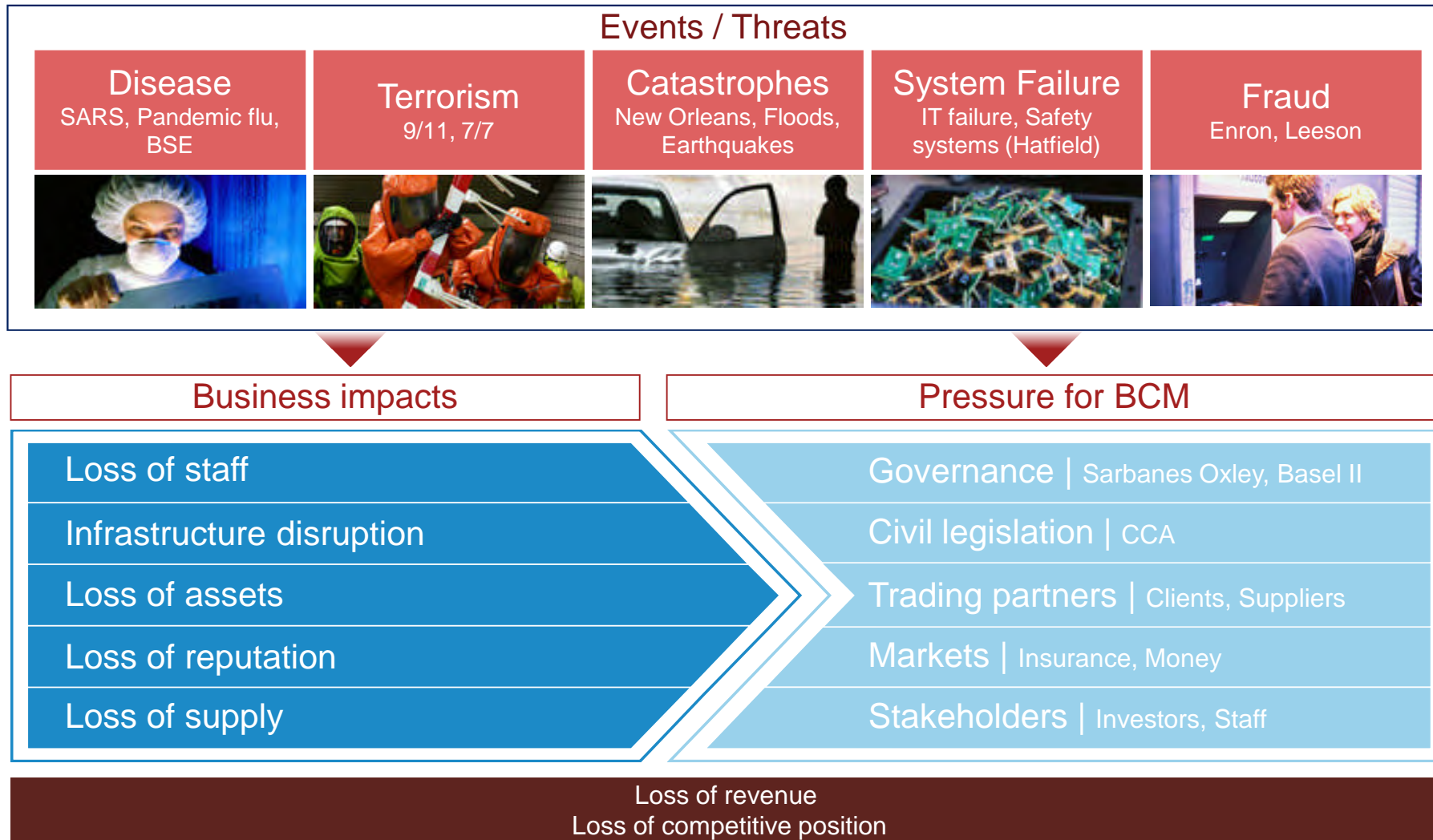
## ***What is Business Continuity Management?***



“**Holistic management process** that identifies potential threats to an organization and the impacts to business operations that those threats, if realised, might cause, and which provides a **framework** for building organizational **resilience** with the capability for an **effective response** that safeguards the interests of its **key stakeholders, reputation, brand and value-creating activities.**”

*British Standards Institute – BS25999-1:2006*

# BCM causes and effect



## ***BCM Planning Approach***

### **Potential Threats**

Loss of critical IT system  
Telecommunications failure  
Power outage  
Theft/burglary  
Fire/explosion  
Severe storms/tornados  
HVAC failure  
No/limited staff  
Vandalism  
Bombing/War  
Water main break/Flooding  
Major supplier disruption  
Transportation disruption

PwC Influenza

### **All-Hazards Approach**

Use “All-Hazards” approach maps threats to 5 encompassing scenarios:

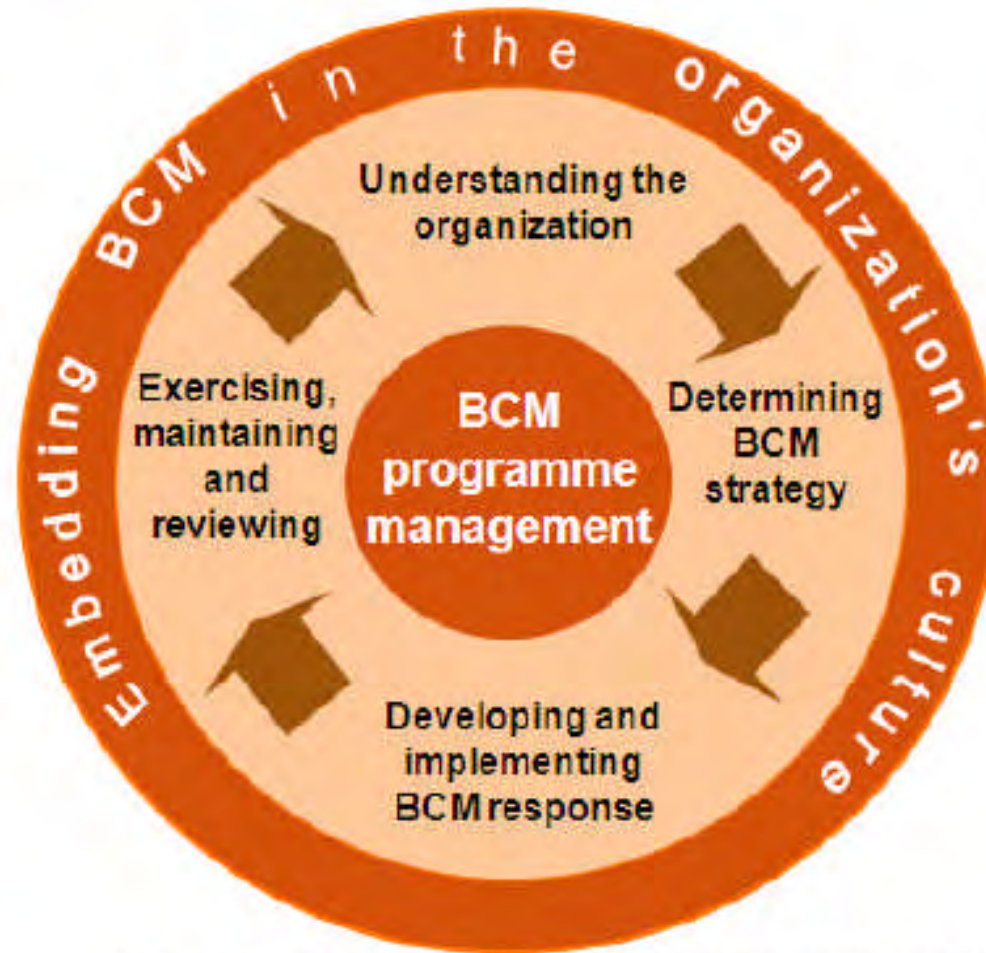
- Scenario 1 - Loss of facilities/infrastructure
- Scenario 2 – Loss of applications
- Scenario 3 – Loss of critical people
- Scenario 4 – Loss of supply chain / distribution
- Scenario 5 – Loss of critical business partners



# Business Continuity Management Concept



# ***Business Continuity Management: BS25999***



Source: British Standard Business Continuity Management: BS25999, Part 1

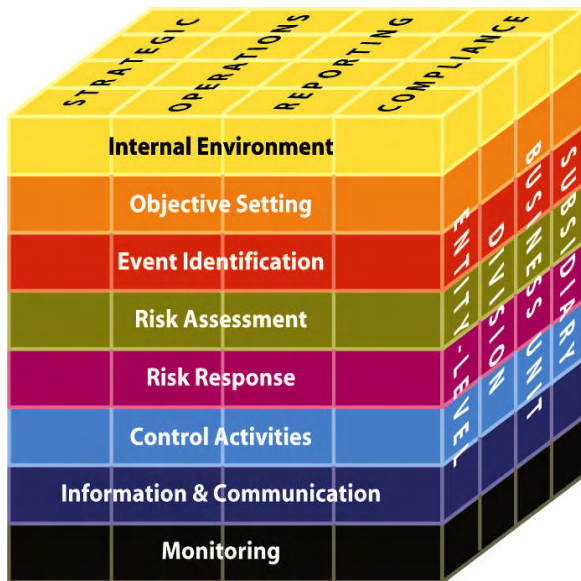
## What are Driving Factors of ERM and BCM

Driving Factors	ERM	BCM
Regulatory Compliance	Yes	Yes
Reputation Protection	Yes	Yes
Stakeholder and Customer Demands	Yes	Yes
Environmental and Man-made Threats	Yes	Yes
Governance Expectations	Yes	Yes
Business-IT Alignment	Yes	No
Program/Process Efficiencies	Yes	No
Capital Optimization	Yes	No
Avoid Surprises	Yes	Yes
Manage Risk Likelihood	Yes	No
Management Event Impact	Yes	Yes

Source : The Intersection of BCM and ERM by Julia Barnes on 5/19/2006

What's the difference between ERM and BCM ?

**What's the difference between ERM and BCM ?**



**ERM**

**BCM**

✓ : Cover 4 Categories	<u>Partial</u> : mostly cover first-three Categories
✓ : The basic stage	✓ : The basic stage
✓ : Corporate and BU objectives	<u>Partial</u> : focus on recovery and tolerance objectives
✓ : Cover Corporate and BU Event	<u>Partial</u> : focus on business disruption event
✓ : Determine on impact and likelihood	<u>Partial</u> : focus on impact
✓ : Consider on 4 risk response categories	✓ : Consider on 4 categories of disruption event
✓ : Policy/Procedures of risk responses	✓ : Policy/Procedures of business disruption event
✓ : Reliable information and effective communication	✓ : Reliable information and effective communication
✓ : Ongoing monitoring activities	✓ : Test, review and revise the BCM plan periodically

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# Q&A

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Thank U\*

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