GTANSW Conference

August 2011

HAZARDS AND SPATIAL TECHNOLOGIES

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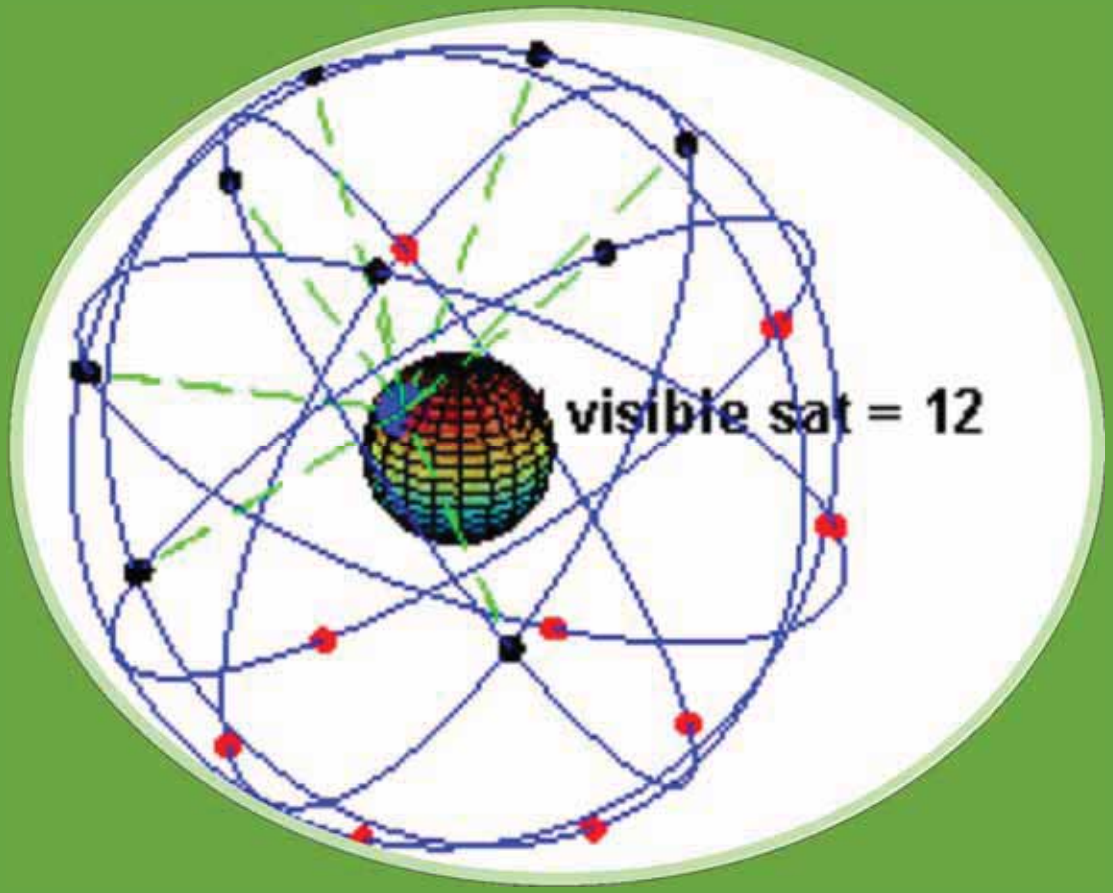
The technology of “where”!

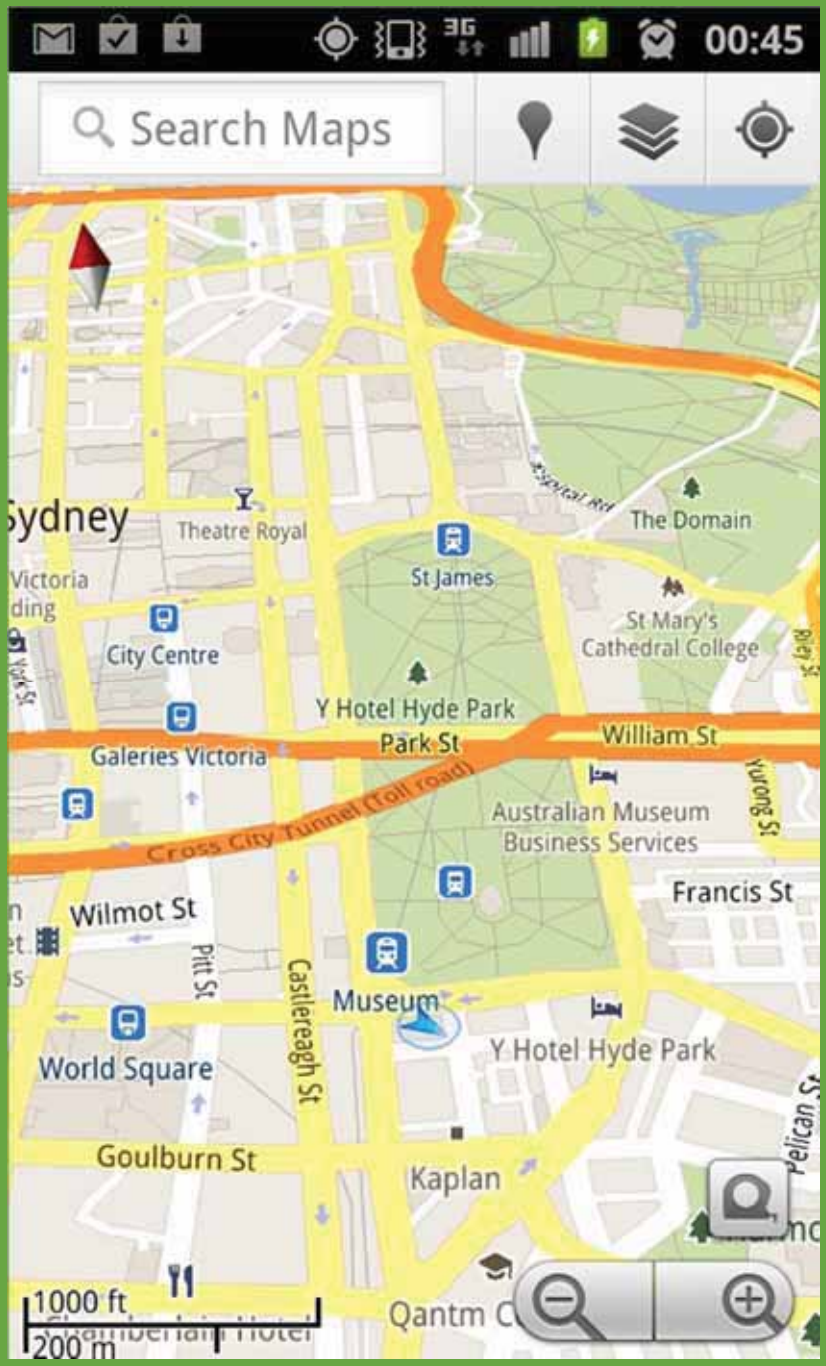
What are Spatial Technologies?

Spatial Technologies | Examples | Teaching

GPS



Spatial Technologies | Examples | Teaching

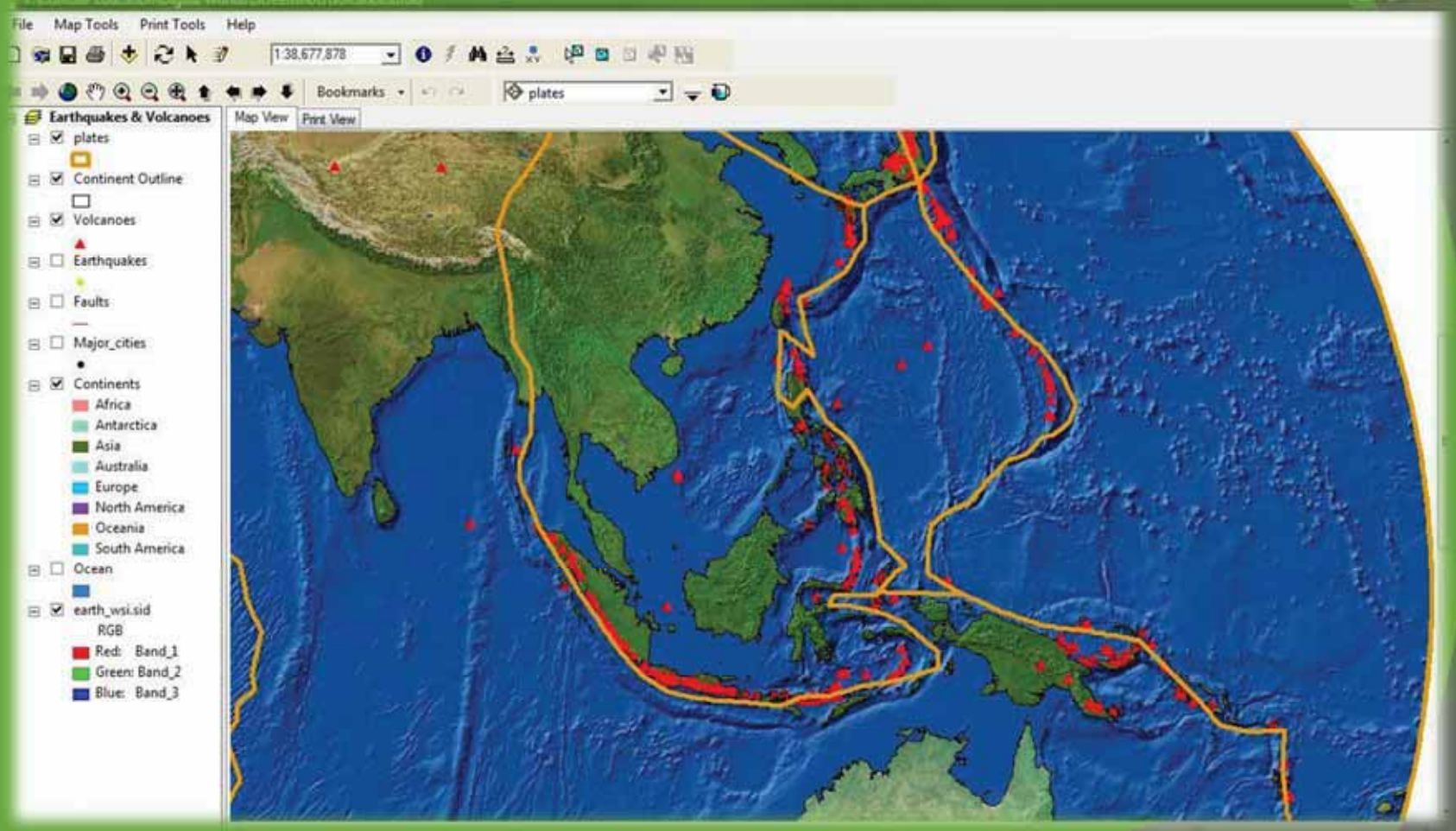

00:45
Search Maps
Sydney
Theatre Royal
The Domain
St James
Victoria
City Centre
St Mary's
Cathedral College
Y Hotel Hyde Park
Park St
William St
Galeries Victoria
Cross City Tunnel (Toll road)
Australian Museum
Business Services
Francis St
Wilmot St
Pitt St
Castlereagh St
Museum
Y Hotel Hyde Park
World Square
Goulburn St
Kaplan
1000 ft
200 m

Spatial Technologies

Examples

Teaching

GIS



Spatial Technologies

Examples

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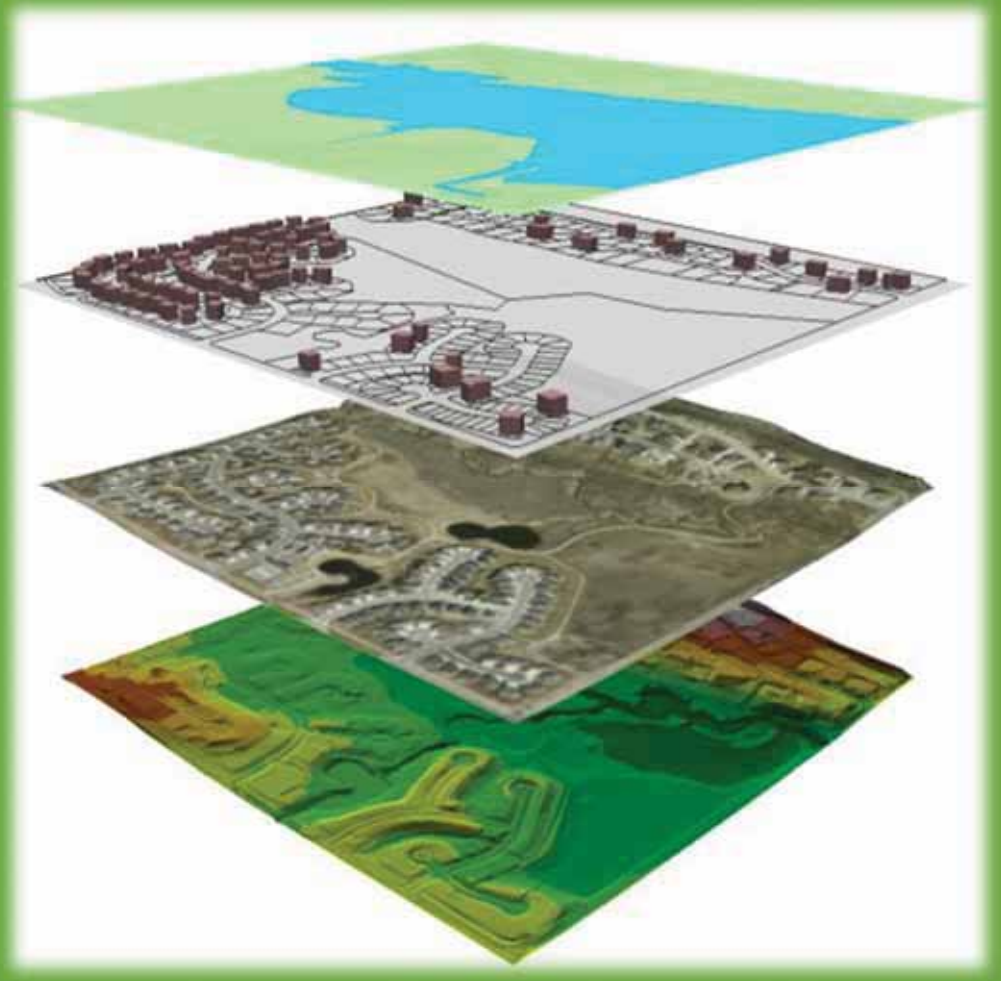


Spatial Technologies

Examples

Teaching

Remote Sensing

Spatial Technologies

Examples

Teaching

"In many cases, successful emergency response starts with a map. The question of “where” is fundamental to assessing risks, planning for hazards, responding effectively to incidents, deploying resources and assisting communities to recover." Spatial Vision, 2011.

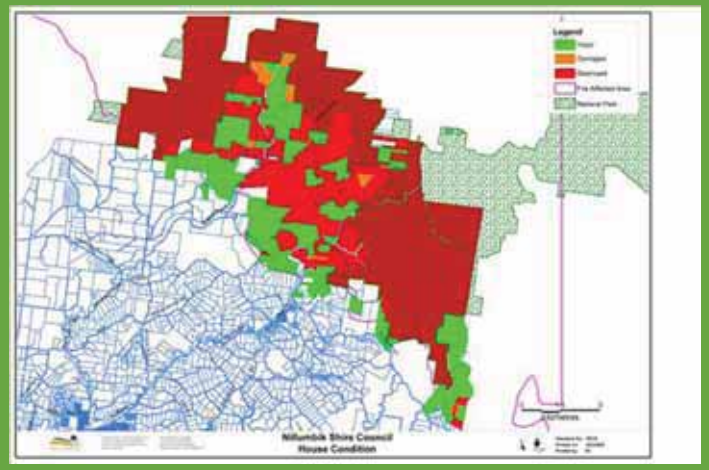
Real Life Examples

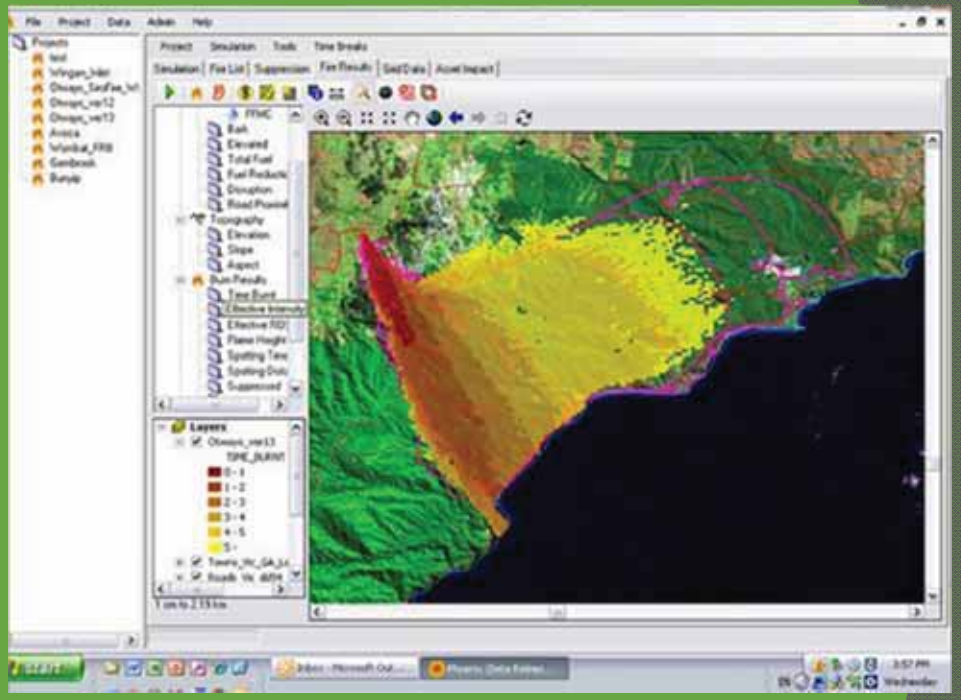
Spatial Technologies

Examples

Teaching

Black Saturday





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Examples

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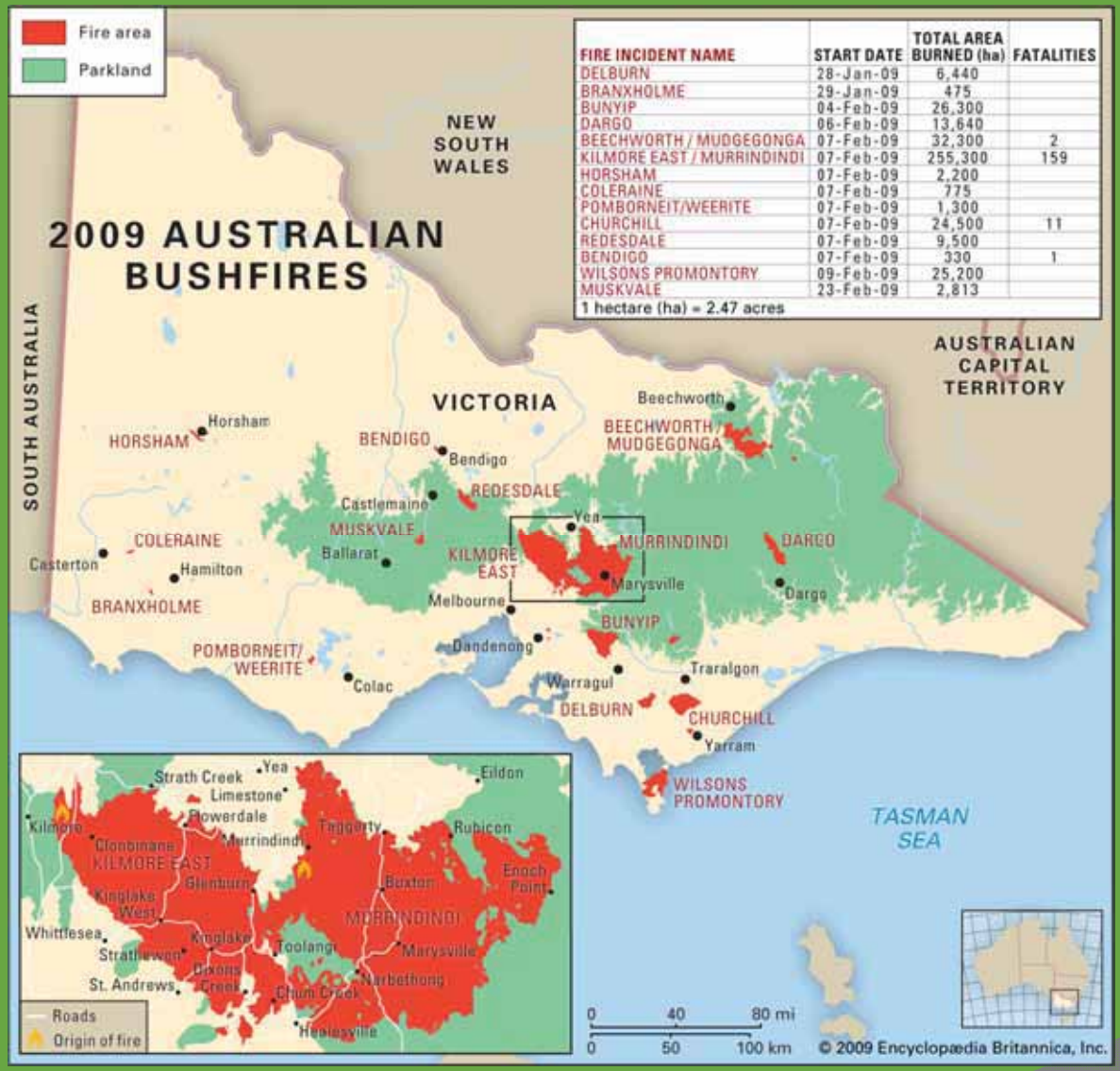

FIRE INCIDENT NAME	START DATE	TOTAL AREA BURNED (ha)	FATALITIES
DELBURN	28-Jan-09	6,440	
BRANXHOLME	29-Jan-09	475	
BUNYIP	04-Feb-09	26,300	
DARGO	06-Feb-09	13,640	
BEECHWORTH / MUDGEGONGA	07-Feb-09	32,300	2
KILMORE EAST / MURRINDINDI	07-Feb-09	255,300	159
HORSHAM	07-Feb-09	2,200	
COLERAINE	07-Feb-09	775	
POMBORNEIT/WEERITE	07-Feb-09	1,300	
CHURCHILL	07-Feb-09	24,500	11
REDESDALE	07-Feb-09	9,500	
BENDIGO	07-Feb-09	330	1
WILSONS PROMONTORY	09-Feb-09	25,200	
MUSKVALE	23-Feb-09	2,813	

1 hectare (ha) = 2.47 acres

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Examples

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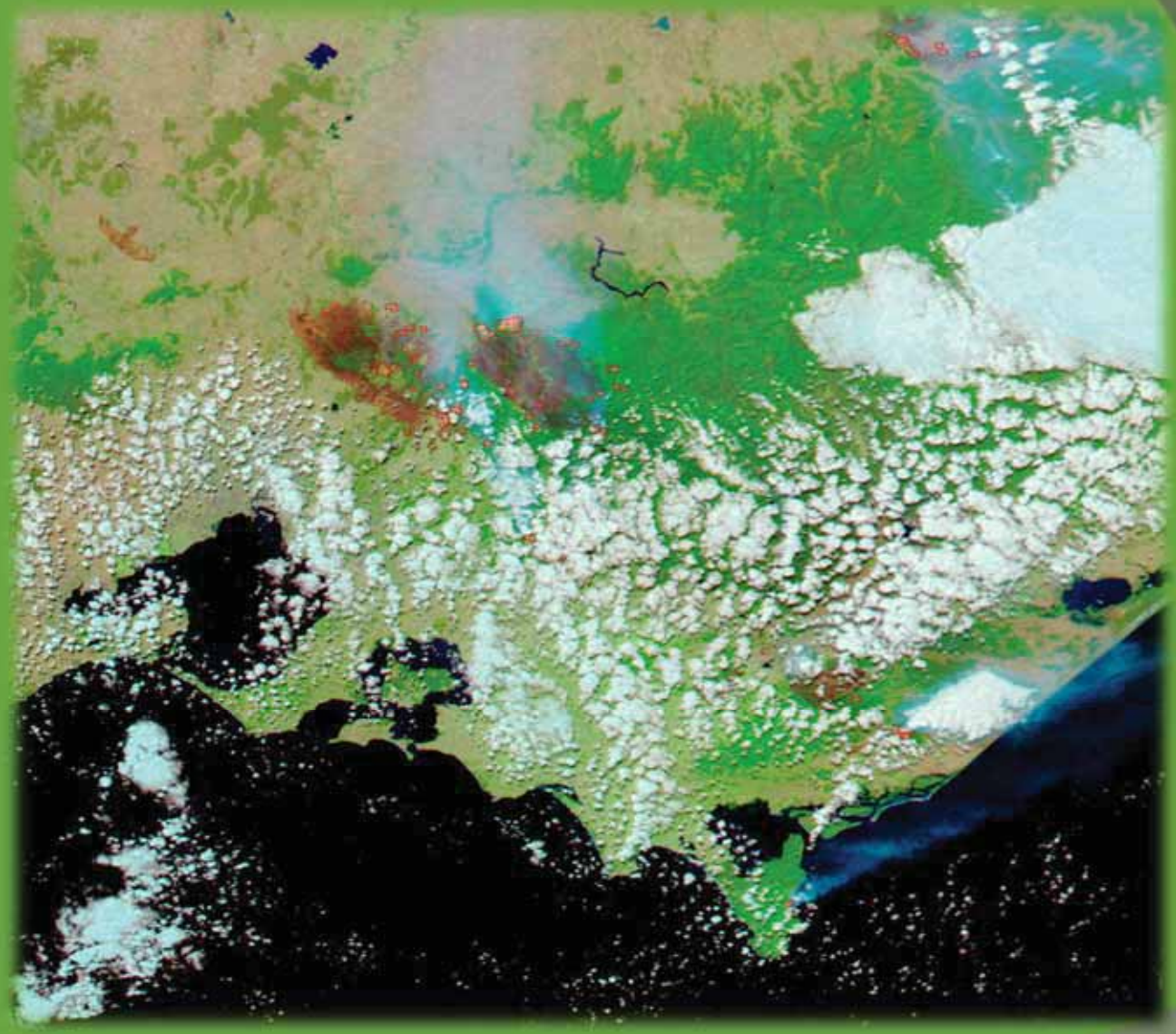

Source: NASA Earth Observatory

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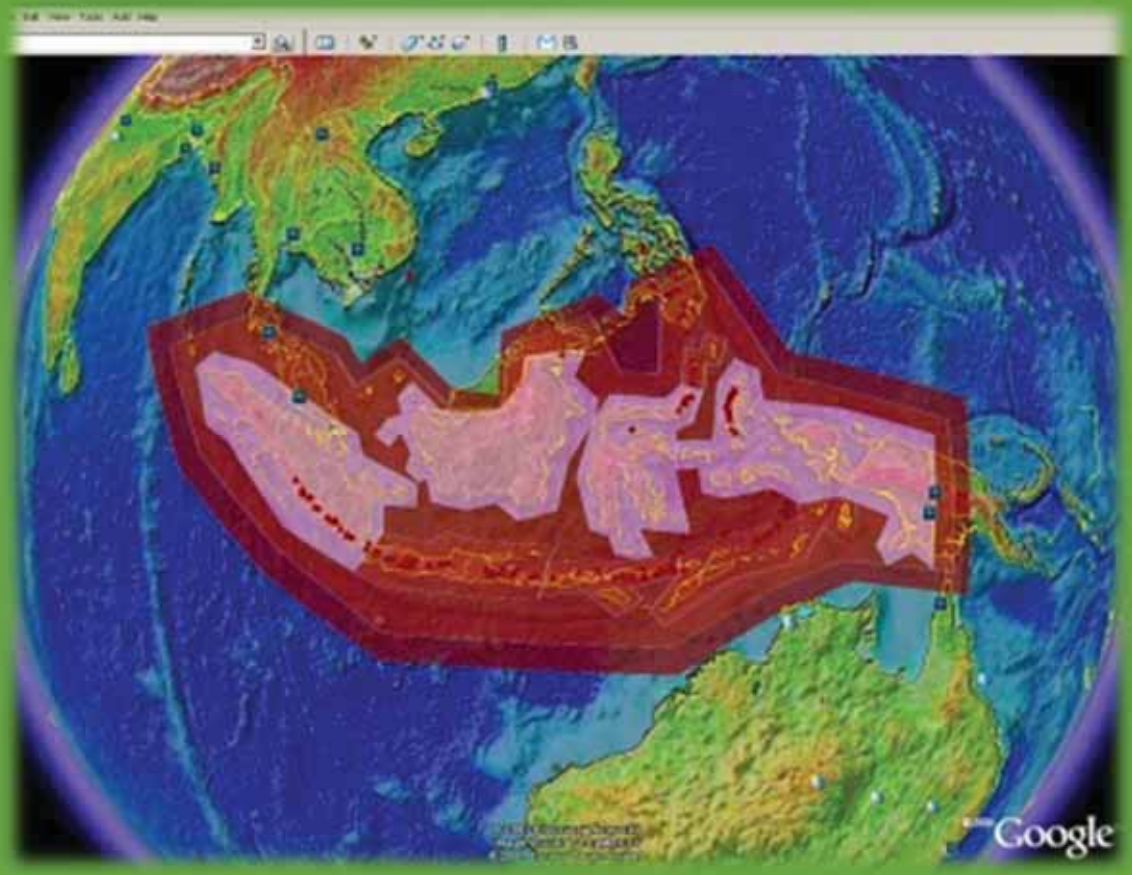
Earthquake Monitoring



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Examples

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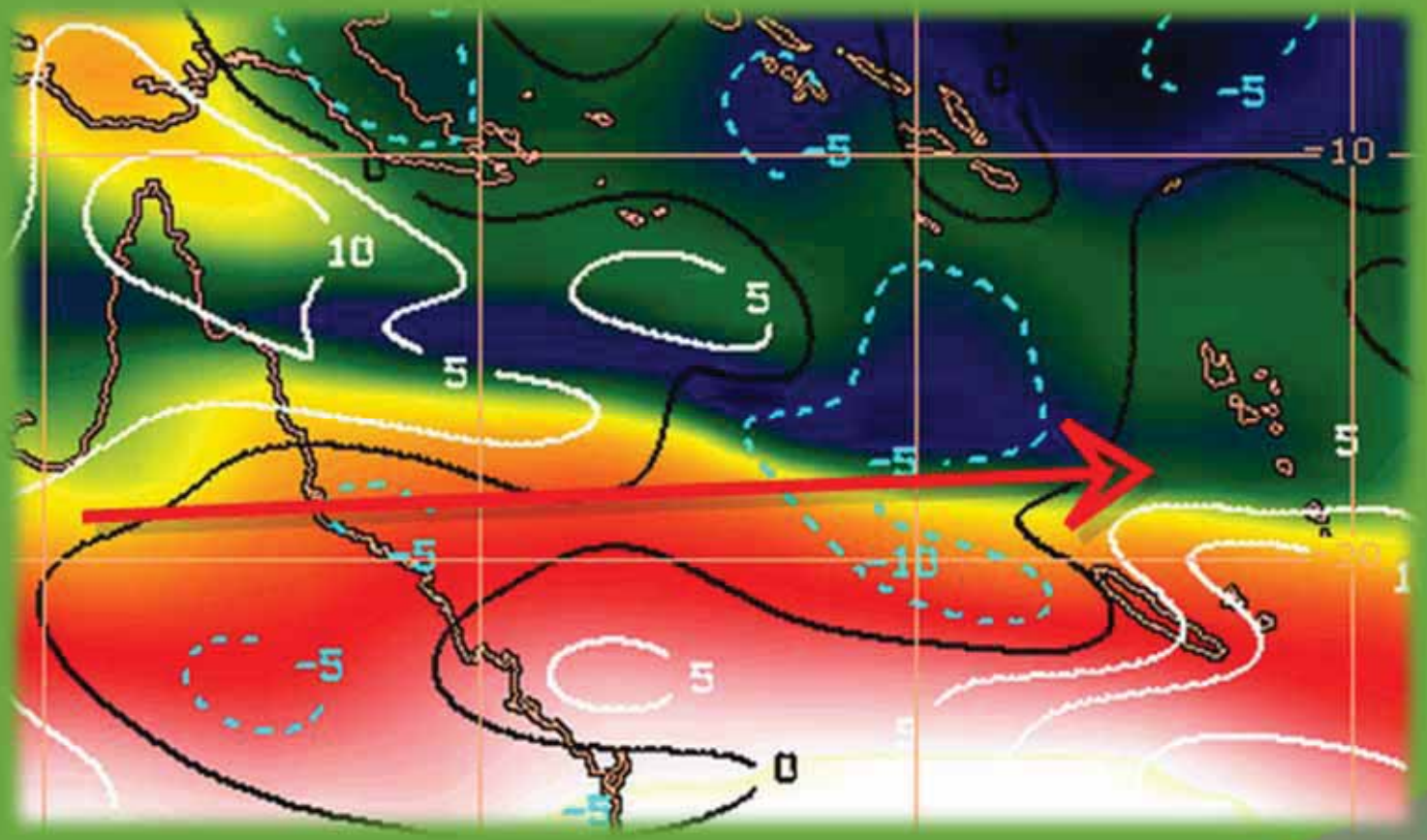
Source: Geoscience Australia website, August, 2011.

Cyclone Tracking



Source: 28storms.com

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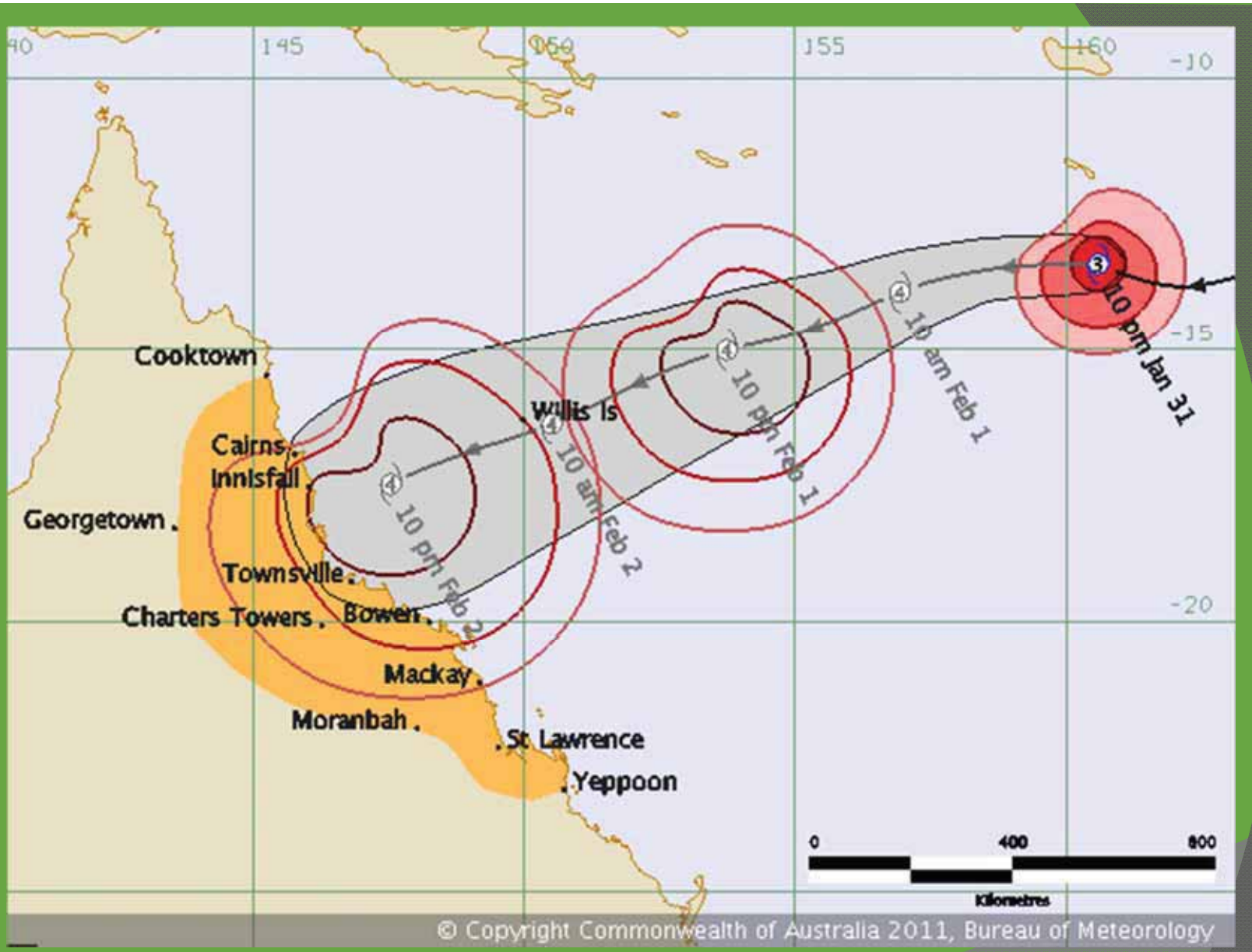

Spatial Technologies

Examples

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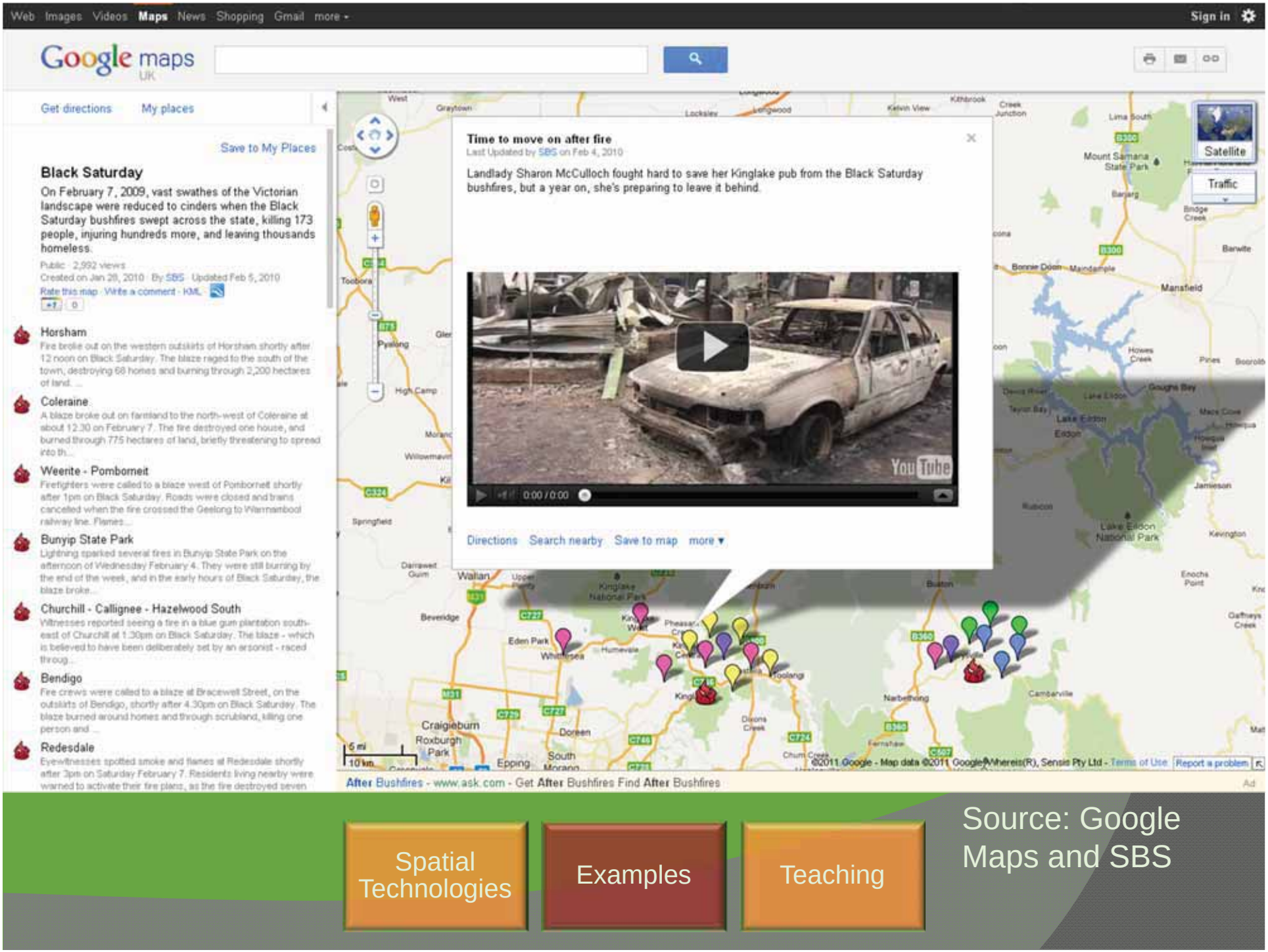
Supporting Materials

- Spatial technologies allow users to create a range of materials that can be used in the immediate and long-term response to the hazard
- Planning, infrastructure, landuse, demographics



Spatial Technologies

Examples

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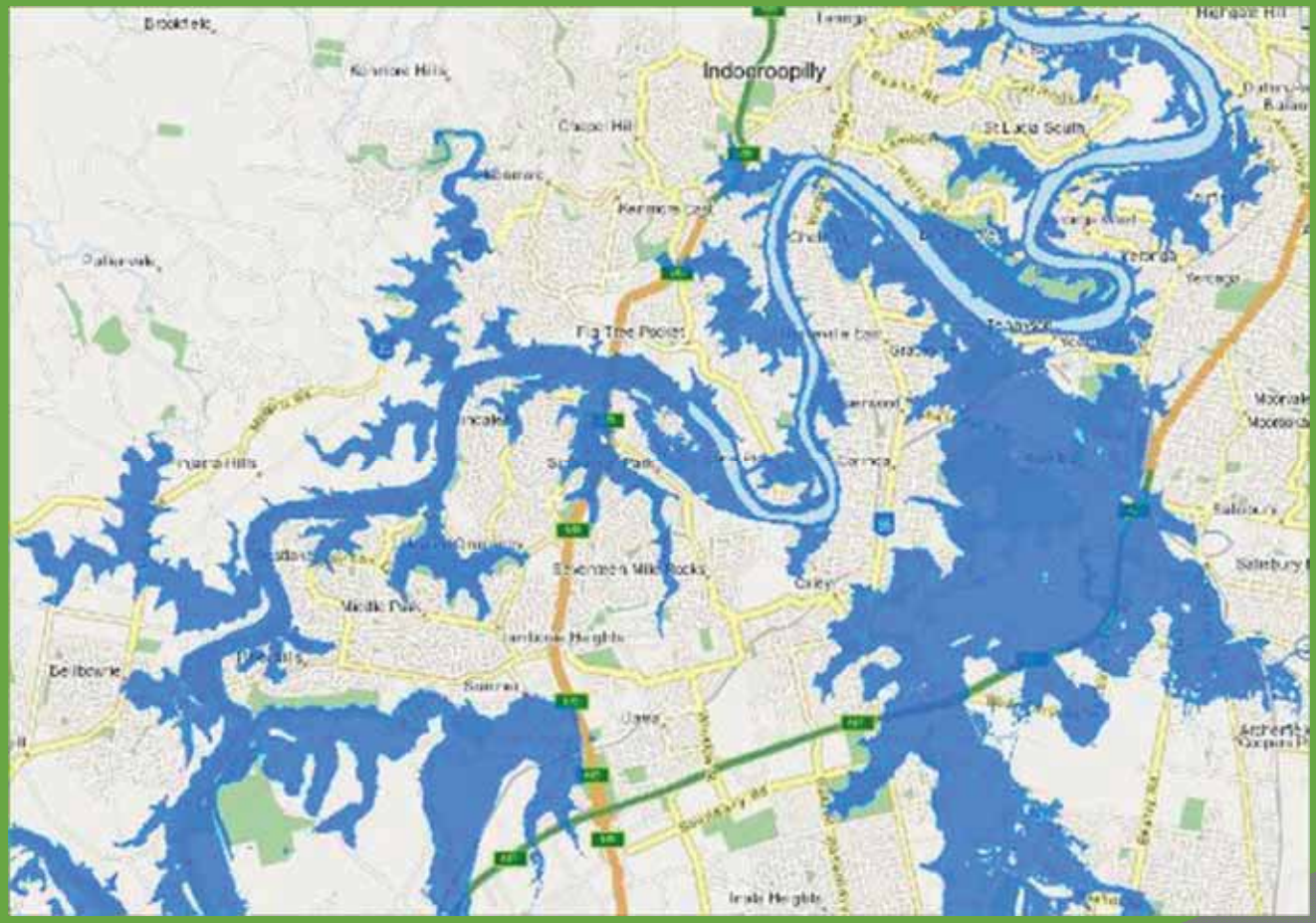
Source: Google Maps and SBS

Queensland Floods 2011



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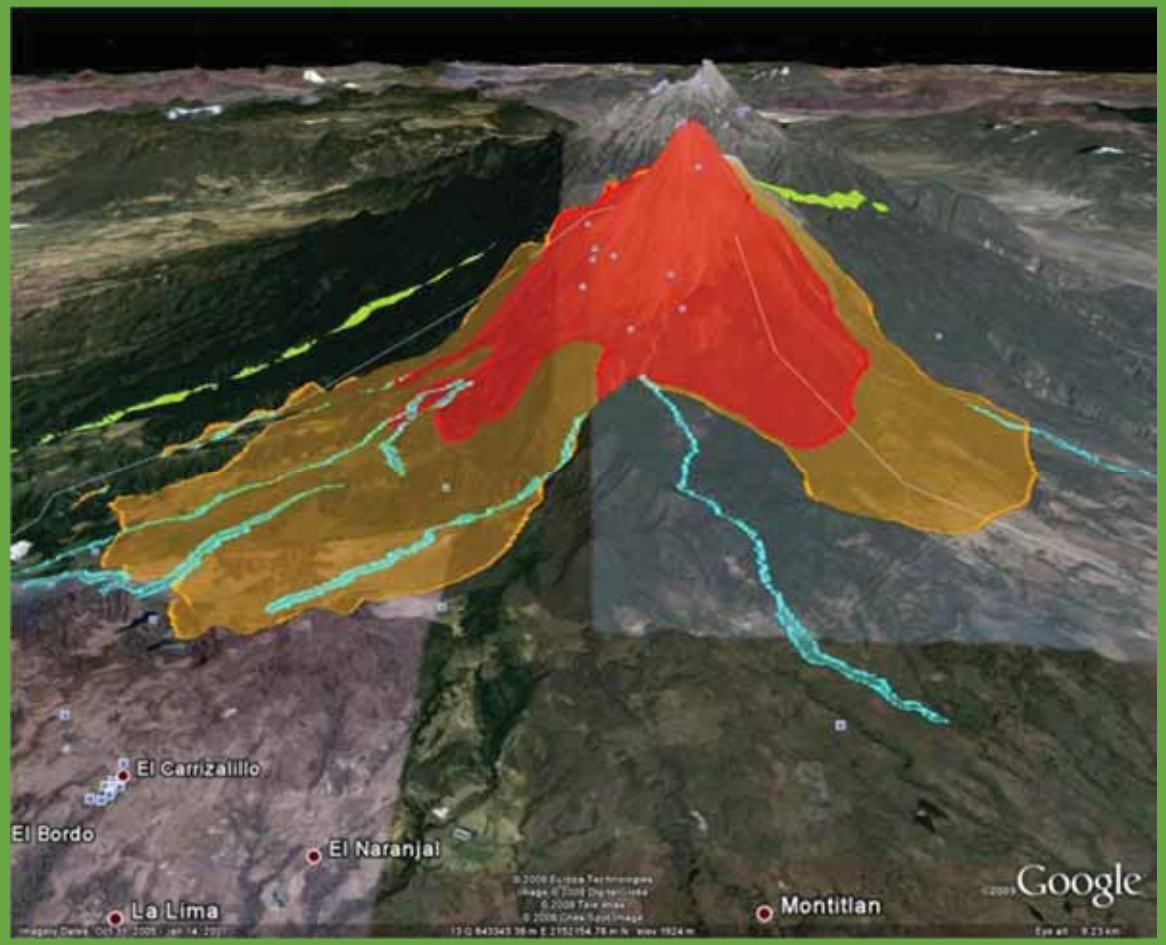
Google Earth



Source: Universidad Nacional Autonoma De Mexico

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Teaching *about* Hazards *with* Spatial Technologies

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Resources

- Contour Education Sentinel activity
- Queensland Floods 2011
- Fukushima disaster and Christchurch Earthquake
- Google Maps and Google Earth
- GIS Packages

Questions?