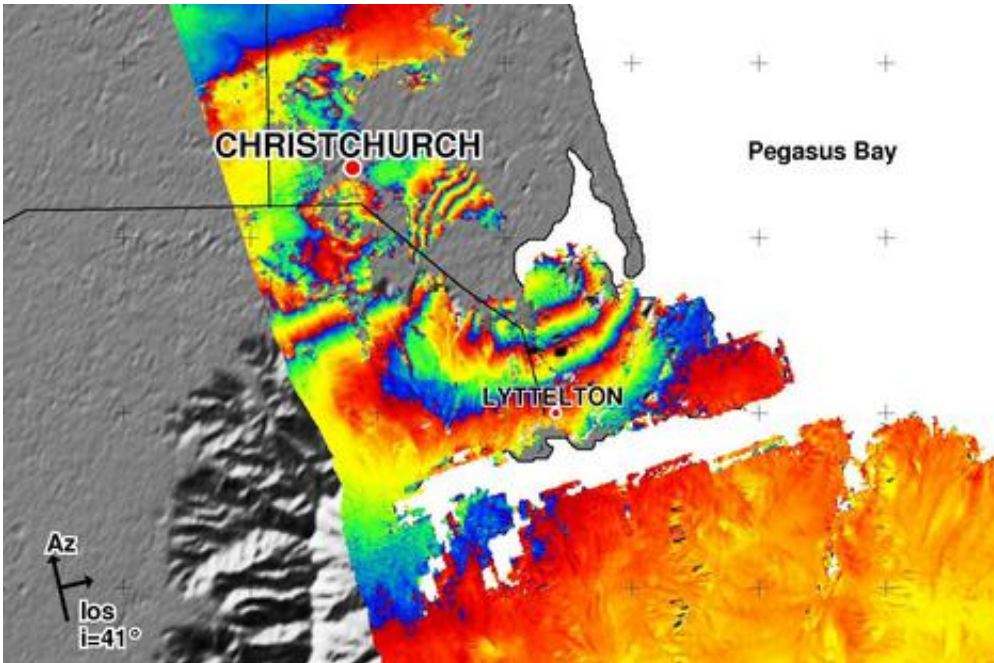


Satellite spies Christchurch quake

March 8 2011, By Pete Wilton



New radar imagery from the Alos satellite is helping researchers to map the devastating earthquake which hit Christchurch, New Zealand, on 22 February.

The Comet team, supported by the Natural Environment Research Council, are using Alos [radar data to build up a picture](#) of how the earth deformed during the [quake](#) in a [synthetic aperture radar](#) interferogram.

'It's like a contour map but it's showing to the south-east of Christchurch

that the ground motion is towards Alos. That's uplift,' [Comet](#) member John Elliott, from Oxford University's Department of Earth Sciences, told Jonathan Amos at [BBC News Online](#).

'And then right under Christchurch, we see subsidence. That's partly due to liquefaction but it's mainly due to the way the Earth deforms when you snap it like an elastic band.'

During earth tremors the loose sediment on which Christchurch is built acts like a liquid and amplifies any shaking. Faults in the area are 'blind', that is invisible from the surface, meaning potential dangers are hard to spot or plan for.

John added: 'People knew they could get earthquakes further into the mountains; that's how they've been built in some ways, through earthquakes and all the faulting... But to get an [earthquake](#) right under their city will have been a surprise to nearly every single person.'

The team are hoping more data will help them to link the most recent shock with the larger quake which occurred in September last year.

Provided by Oxford University

Citation: Satellite spies Christchurch quake (2011, March 8) retrieved 24 April 2024 from <https://phys.org/news/2011-03-satellite-spies-christchurch-quake.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.