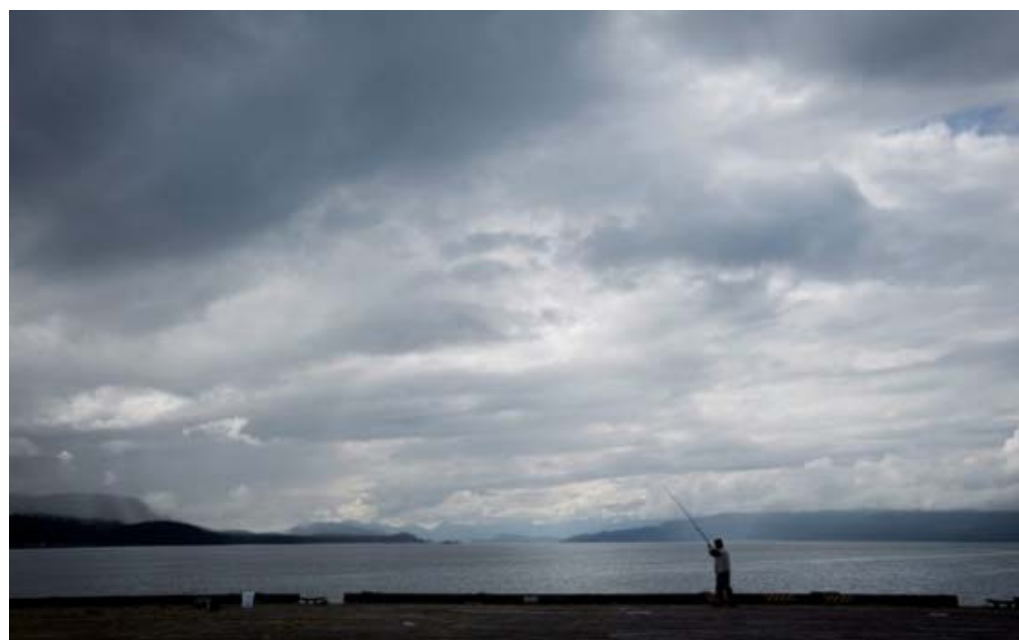


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South of Haida Gwaii likely location of future quake: experts

Geordon Omand / The Canadian Press

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A man fishes on the end of a wharf in Sandspit, B.C., on Moresby Island in Haida Gwaii on Friday, August 16, 2013. Experts studying the second-biggest earthquake measured in Canadian history have zeroed in on the Pacific archipelago of Haida Gwaii as the likely source of a future large quake and tsunami. THE CANADIAN PRESS/Darryl Dyck

VANCOUVER - Experts studying the second-biggest earthquake measured in Canadian history have zeroed in on the Pacific archipelago of Haida Gwaii as the likely source of a future large quake and tsunami.

The earthquake off British Columbia's coast in October 2012 relieved some of the region's tectonic strain, but new research shows the shifting also increased pressure immediately south of the islands along the Queen Charlotte Fault.

"What this has done in essence is raise the possibility of future thrust earthquakes and tsunamis along this part of the British Columbia margin," said Thomas James, a researcher with the Geological Survey of Canada.

James is one of the lead authors of a compendium of studies analyzing various facets of the recent earthquake, most of which were published Monday in the Bulletin of the Seismological Society of America.

The Pacific and North American tectonic plates mostly slide along one another, but where those plates meet at certain points along the Queen Charlotte Fault they also push against each other, he explained.

The release of that pushing pressure gave rise to the thrust earthquake of 2012.

This type of earthquake is "unusual and to a certain degree unexpected" for the region, added James.

"Any large earthquake can generate a tsunami but thrust earthquakes are especially effective."

The scientists' findings were revealed shortly after the provincial government released a consultation report that found B.C. is falling behind on earthquake preparedness.

The absence of major seismic activity near densely populated areas has contributed to a culture of public apathy and resulted in government diverting resources away from emergency management agencies, concluded the report prepared by American consultant Henry Renteria.

"The problem when you are living in earthquake country ... is that an earthquake is inevitable," said Renteria in an interview.

"It is going to happen — it's not a matter of if, it's a matter of when."

Renteria spoke critically of significant cutbacks and staffing shortages suffered by the province's lead agencies responsible for earthquake and disaster management over the past 20 years, adding that the impact "is beginning to show."

The report also highlighted the role of members of the public in contingency planning.

The minister responsible for Emergency Management B.C., Suzanne Anton, was unavailable for comment but the ministry issued a news release regarding the report saying: "The Province will continue taking significant strides toward improving disaster preparedness in B.C."

While the Haida Gwaii earthquake of 2012 caused little structural damage and no serious injuries, in large part thanks to its remoteness, the region experienced tsunami run-up of up to 13 metres. Some of the land also reportedly shifted a full metre from its original location.

"I was quite amazed at the emotional trauma," said seismologist Alison Bird, who travelled to the archipelago to drop off scientific equipment and interview residents.

"Some people felt it but they weren't really all that bothered by it. Other people were quiet shaken up, figuratively and literally."

Bird recalled being approached by a "burly, lumberjack fellow" close to tears who couldn't stand the rumblings of the aftershocks, thousands of which could be felt in the weeks following the main event.

He would sleep with the radio on so he couldn't hear the noise, she said.

While the timeline is uncertain, researchers say B.C. is due for a powerful megathrust earthquake — popularly described as the Big One — which is forecast to impact more populated regions of the province.

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