

Q6

What is the view of experts about the risks of earthquakes striking and the ground subsiding at Henoko, the location where the new base is planned?

Digging down below the ground surface, one eventually reaches a layer comprised of very hard rock in which there are many cracks or geologic faults. As significant force is applied to this layer, these cracks will rupture. That impact is then transmitted throughout the layer, resulting in an earthquake. Of these geologic faults, those where seismic activity has repeatedly occurred for hundreds of thousands of years and where such activity is anticipated in the future are referred to as “active faults.”

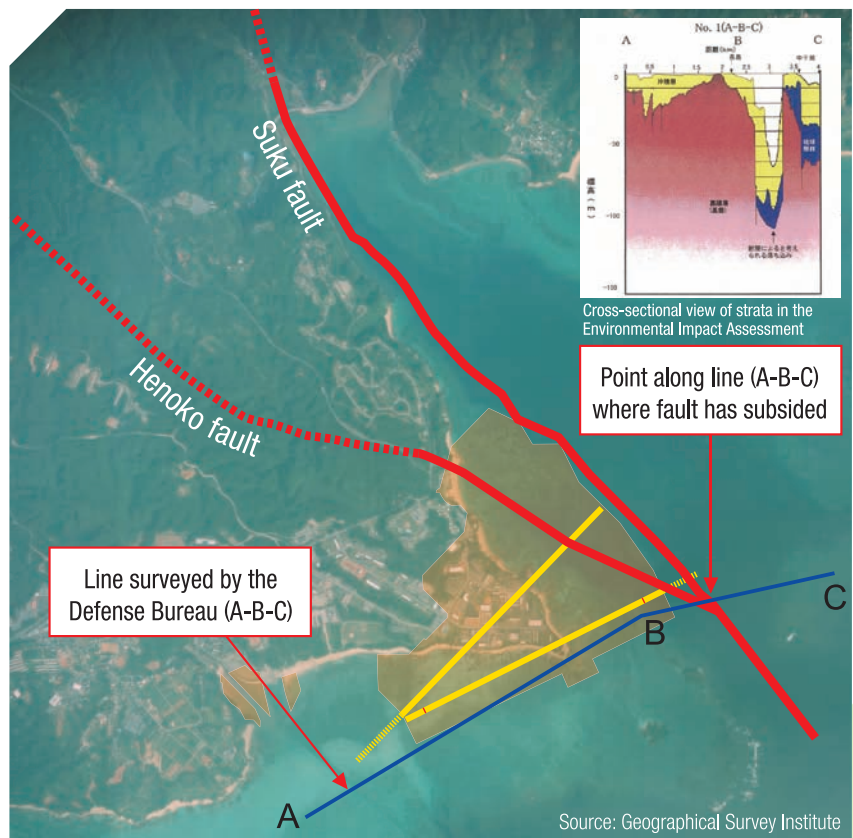
Two faults intersect below the waters of Oura Bay near the planned site for construction of the new base at Henoko. Submarine terrain has been observed where there is a sharp drop-off of over 50 meters. It is here that geologists point out the likelihood that the faults are active.

Trench earthquakes recur every 100 to 200 years, a much shorter interval than those originating in active faults. Based on actual data, geologists and environmentalists have pointed out the danger of trench earthquakes and subsequent tsunami to the area where construction of the new base is planned.

Between May 2014 and April 2017, the Japanese government used bedrock survey ships to conduct boring surveys predominately around the faults where this sharp drop off has been observed. Okinawa Prefecture has made several requests to the Japanese government for the survey data results. Although the Japanese government has not released the data nor disclosed the purpose of these surveys, it has moved forward with the land reclamation project.

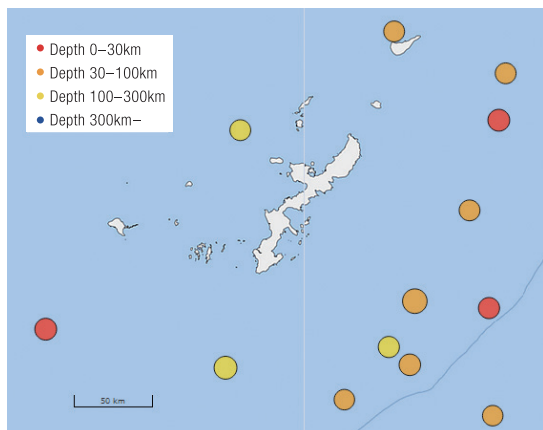
In this same sea area, geologic maps indicate coral reefs and the poor subsoil beneath which there is an accumulation of Ryukyu limestone. Civil engineers have predicted that the project will be difficult to complete and maintain due to the extensive ground reinforcement required for construction.

Regardless, the Japanese government should promptly release the geological survey data collected so that the safety of geological strata and ground at the planned construction site may be verified.



Subsiding sea bottom terrain *(Red line indicates fault.)

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Earthquakes recorded in Okinawa Prefecture having a magnitude of 6 or greater (1923-2017)

	Date	Magnitude		Date	Magnitude
1	February 27, 2010	M7.2	8	June 23, 1962	M6.0
2	July 8, 2008	M6.1	9	September 12, 1960	M6.1
3	July 22, 2004	M6.1	10	May 26, 1959	M6.1
4	August 18, 2001	M6.4	11	July 22, 1953	M6.2
5	August 3, 1968	M6.3	12	February 3, 1926	M6.0
6	January 31, 1963	M6.2	13	August 12, 1923	M6.7
7	October 6, 1962	M6.4			

Source: Japan Meteorological Agency database

*Statistical data collected by the Japan Meteorological Agency show that there have been 13 earthquakes registering a magnitude 6 or greater in the seas around the Okinawa main island over the 94 years from 1923 to 2017. Even in Japan which is plagued by earthquakes, Okinawa Prefecture is also experiences many earthquakes