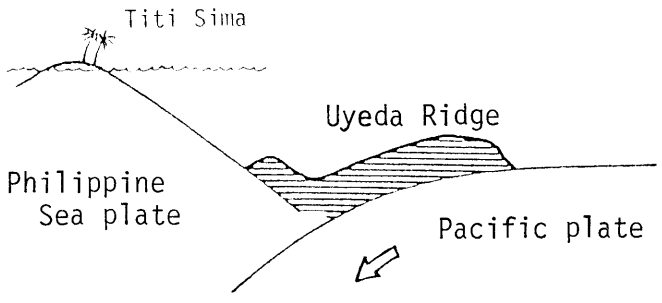
The figure given above is a scale-down copy of the 'Ocean Current Information Chart, No. 2' showing current paths and directions estimated for the day of 28th May, issued on trial on 23 May 1986.

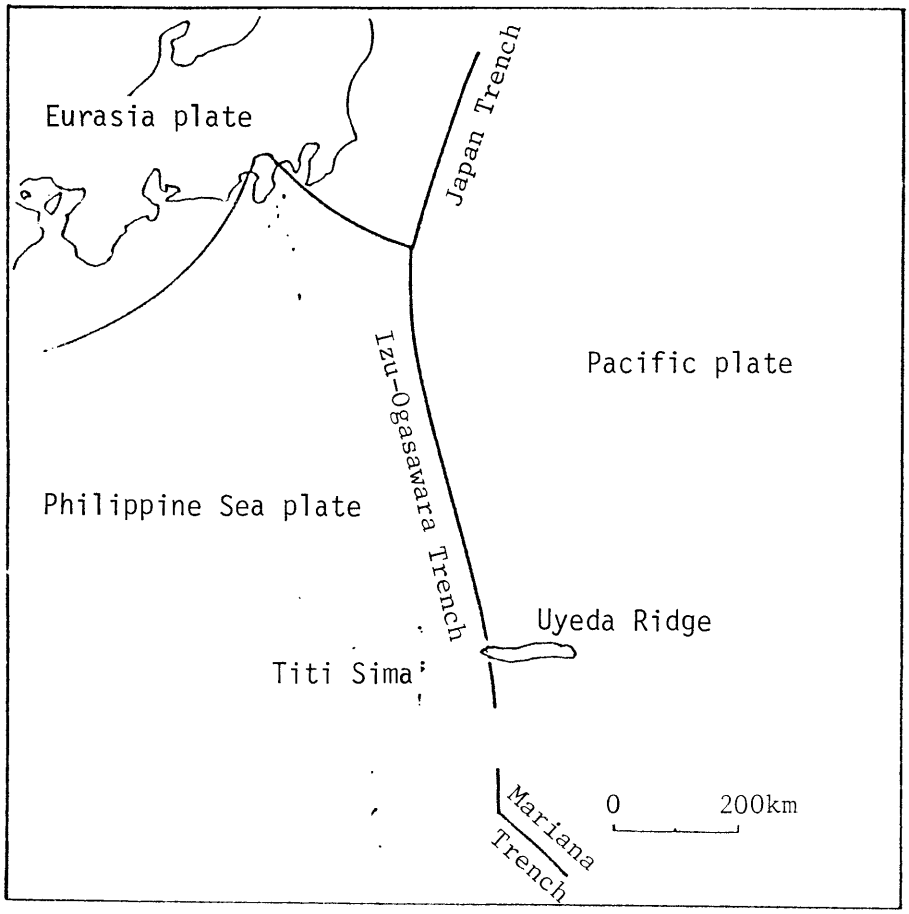
On the figure, the northern limit of the Kuroshio stream (current speed: 1 - 5 kn) is shown by a solid line of curves, while the southern limit by a dashed line because the latter limit may vary according to sea areas, but it does not necessarily mean that the zone between the solid and dashed lines is a width of the Kuroshio current. It is said that the strongest stream of the Kuroshio flows about 10 - 20 miles south of its northern limit. Main streams (speed: 0.5 - 1.5 kn) of Tusima Current are shown by a double-solid line. The warm water mass is shown by a dashed line, while the cold water mass by a chain line. The table shows locations of probable strongest streams of the Kuroshio and Tusima Current on the day (28 May) of prediction, giving directions in cardinal points and distances in miles from certain land points or islands.

PACIFIC RIDGE MOVING BETWEEN PLATES

The Hydrographic Department of Japan conducted a submarine topographic and geophysical survey using the survey vessel Takuyo in and around Izu-Ogasawara Trench in December last year and February this year. The results of the survey have revealed that a ridge on the floor of the Pacific Ocean that was originally on the Pacific plate is moving longitudenaly onto the Philippine Sea plate at the Izu-Ogasawara Trench about 540 miles SSE of Tokyo.

The discovery was made in a survey of the western part of the 'Uyeda Ridge' in the sea about 65 miles E of Titi Sima of the Ogasawara Islands. The Uyeda Ridge, which is reported as 150 km long, 18 km wide on average and some 4200 m high, on the 100 km thick Pacific plate is straddling the Izu-Ogasawara Trench and running onto the Philippine Sea plate. This is

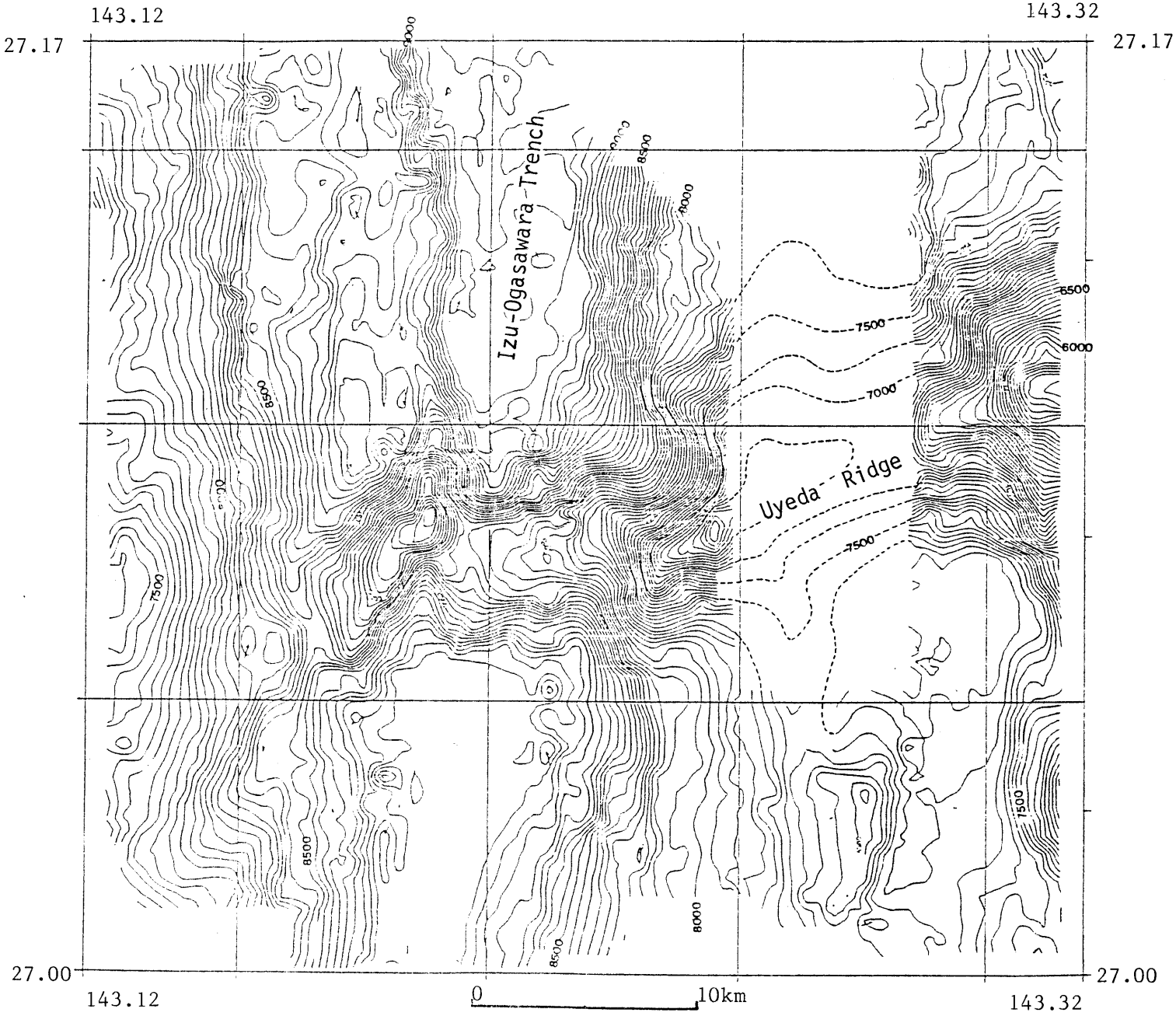




the first time that either an ocean bottom ridge or a seamount standing on one plate has been found to be advancing onto another plate. According to the plate tectonics theory, the Pacific plate is subducting beneath the Philippine Sea plate at the Izu-Ogasawara Trench and this causes earthquakes.

The discovery will provide a very important clue to the mechanism of plate tectonics, a leading theory to account for the causes of earthquakes and other crustal movements. The discovery that an ocean bottom ridge is moving from one plate onto another is also expected to offer clues to the formation of the Japanese archipelago.

The topographic chart of the area in question is given on page 10.


143.12
143.32
27.17
27.17
27.00
27.00
Izu-Ogasawara Trench
Uyeda Ridge
8000
8500
7500
6500
6000
7000
0
10km