Structure of the foreland fold-and-thrust belt, Hidaka Collision Zone, Hokkaido

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A foreland fold-and-thrust belt has been growing on the west of the Hidaka Collision Zone, recording the collision process in its structure. Thus it is essential for analysis of the process to restore the whole structure of the fold-and-thrust belt. Fortunately JNOC has conducted sesimic reflection profilings in the western half of the belt for oil and gas exploration for recent 30 years. The profilings exhibit a typical W-vergence fold-and-thrust structure which is composed of huge 3 or 4 thrust sheets. The shortening of the western half is evaluated at 40 to 50 km in length during the collison. In the eastern half, the Eocene Niseu-Sarugawa sheet indicate that the shortening is at least 30 km in length. Therefore the total shortening is calculated to be 70 to 80 km in length.

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