

Analyzing Europe's Largest Suspension Bridge

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Key words:

ABSTRACT

Landinspektoerfirmaet (LE34), the largest private surveying company in Denmark (employing between 60 and 70 people), in June conducted a four-day deformation analysis survey of Europe's largest suspension bridge: the eastern portion of the Great Belt Fixed Link. Under contract to the government-owned company A/S Storebaelt, LE34 measured the amount of bridge settlement that occurred during the transit of some 20,000 Danes who walked across the bridge to celebrate the opening of the Great Belt Fixed Link, an inter-island complex consisting of two bridges and an undersea railway tunnel which link the islands of Funen and Zealand. The project discussed here demonstrates the feasibility of using GPS to measure the full dynamic range of an engineered structure's response to loading over time in a timely and cost-effective manner.

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