



## Deltares

Enabling Delta Life



### Abstract

The safety standard defined for the Dutch coast is based on an exceedance probability of a 1/10,000 per year storm surge. Our goal is to improve the confidence interval of such a rare storm by estimating the surge height and morphological effect of the biggest storms of the 18th century. This poster describes the reconstruction of the morphological effect and surge height of the storm of 25 december 1717.

# Reconstructing the 1717 Christmasflood

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### The 1717 flood

In the night of christmas 1717 a northwestern storm resulted in a flood with over 10,000 casualties in Germany and the Netherlands.

**Reconstruction steps** 



#### Inverse modelling:

The water level conditions that caused the 1717 erosion event are estimated using XBeach. The best fit corresponds to a 1/1000 per year storm. Water level: 4.2m

Wave height: 8.4m



- Collect images between 1600 and 1750 (1)











