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www.elsevier.com/locate/csr

PII: S0278-4343(17)30422-3
DOI: https://doi.org/10.1016/j.csr.2018.07.004
Reference: CSR3790

To appear in: *Continental Shelf Research*

Received date: 10 August 2017
Revised date: 25 June 2018
Accepted date: 5 July 2018

Cite this article as: Yunhai Li, Xiaohui Xu and Binxin Zheng, Satellite views of cross-strait sediment transport in the Taiwan Strait driven by Typhoon Morakot (2009), *Continental Shelf Research,* https://doi.org/10.1016/j.csr.2018.07.004

Satellite views of cross-strait sediment transport in the Taiwan Strait driven by Typhoon Morakot (2009)

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Abstract

After landing on Taiwan Island, Typhoon Morakot crossed the Taiwan Strait and made a second landfall on the western coast of the strait. In this study, we investigated the impact of Typhoon Morakot on the marine environment and explored the dynamic mechanism for enhanced cross-strait sediment transport based on remote sensing data of sea surface temperature (SST) and total suspended matter (TSM) as well as wind vector data. The results showed that the SST significantly decreased along the typhoon path, while the TSM dramatically increased, with a