



## **River flood events in Thailand and Bangladesh observed by CryoSat-2**

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The high along track resolution of the SIRAL altimeter carried on-board CryoSat-2 offers a wide range of unique opportunities for satellite monitoring. This study focuses on the ability of CryoSat-2 to detect the effects of flood events such as increased river levels and inundation of land.

Here we study two flood events; the Bangladesh flood event of June 2012 and the flooding in Thailand that lasted between July 2011 and January 2012. The flooding in these areas was caused by abnormal monsoonal rainfall and affected millions of people.

We process CryoSat-2 level 1b SAR mode data to derive water levels for the areas and compare these levels before, during and after the flooding events. Other parameters such as the backscatter coefficient and pulse peakiness are also considered. To verify the extent of the flooding observed by CryoSat-2 we compare with independent sources such as Landsat images.