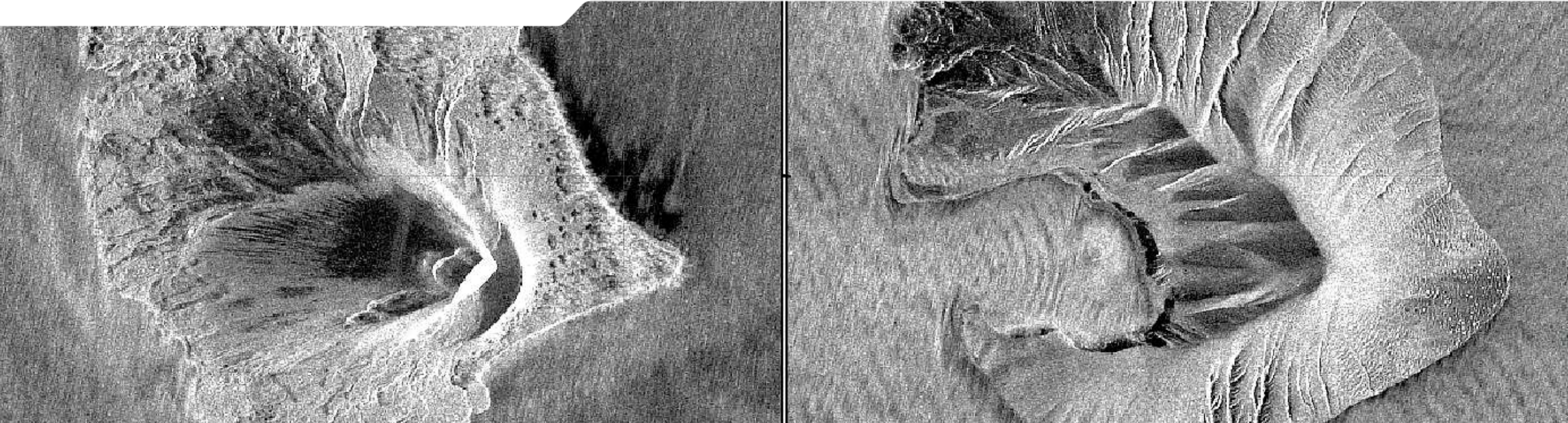




PRECURSORS AND PROCESSES CULMINATING IN THE ANAK KRAKATAU DEC 2018 SECTOR COLLAPSE AND TSUNAMI

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KRAKATAU ON 22 DEC 2018



Anak Krakatau in December 2019

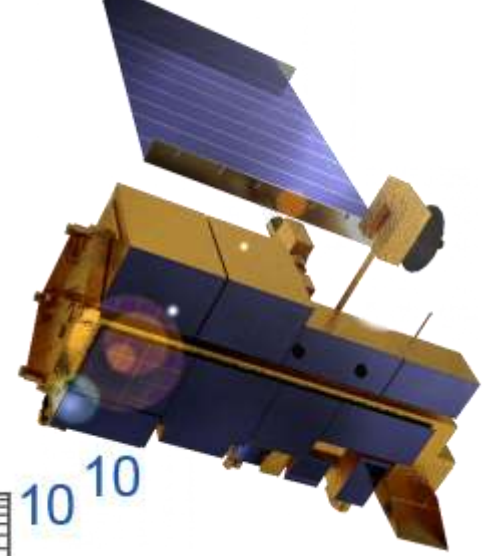
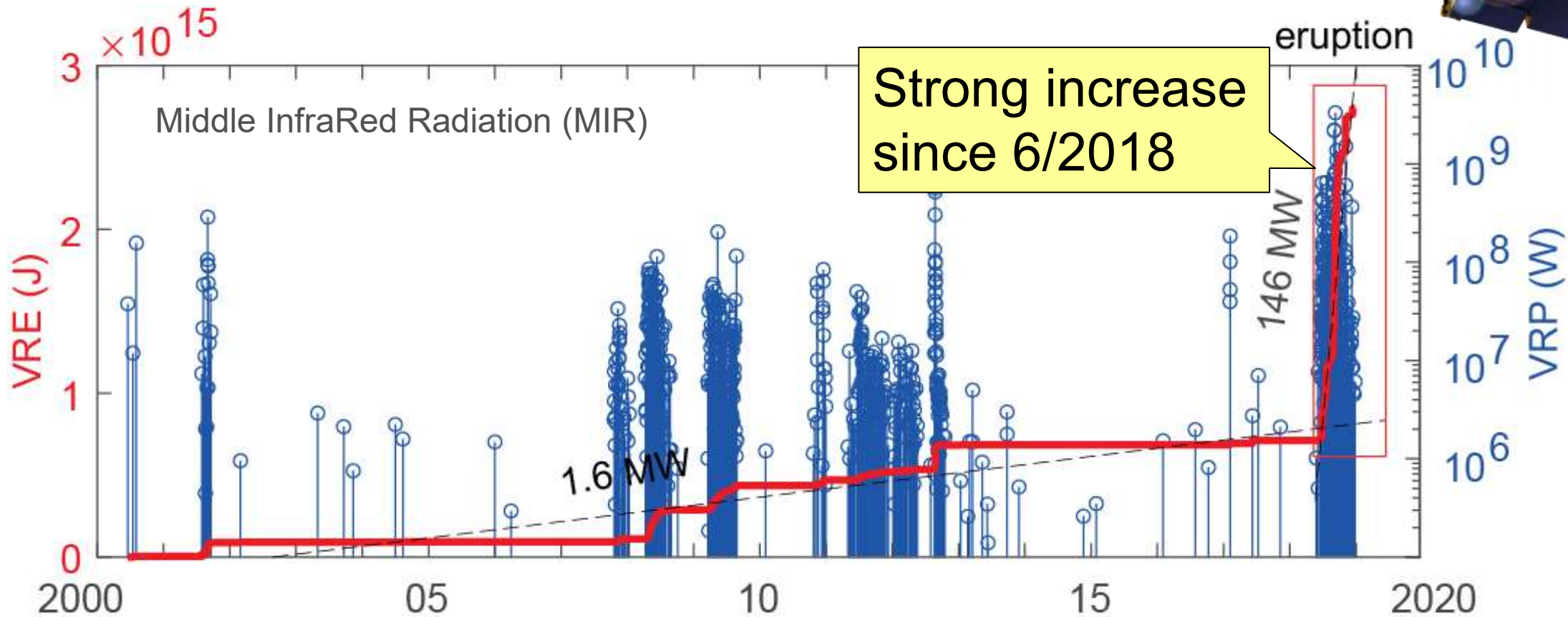


Tsunami damage in December 2019

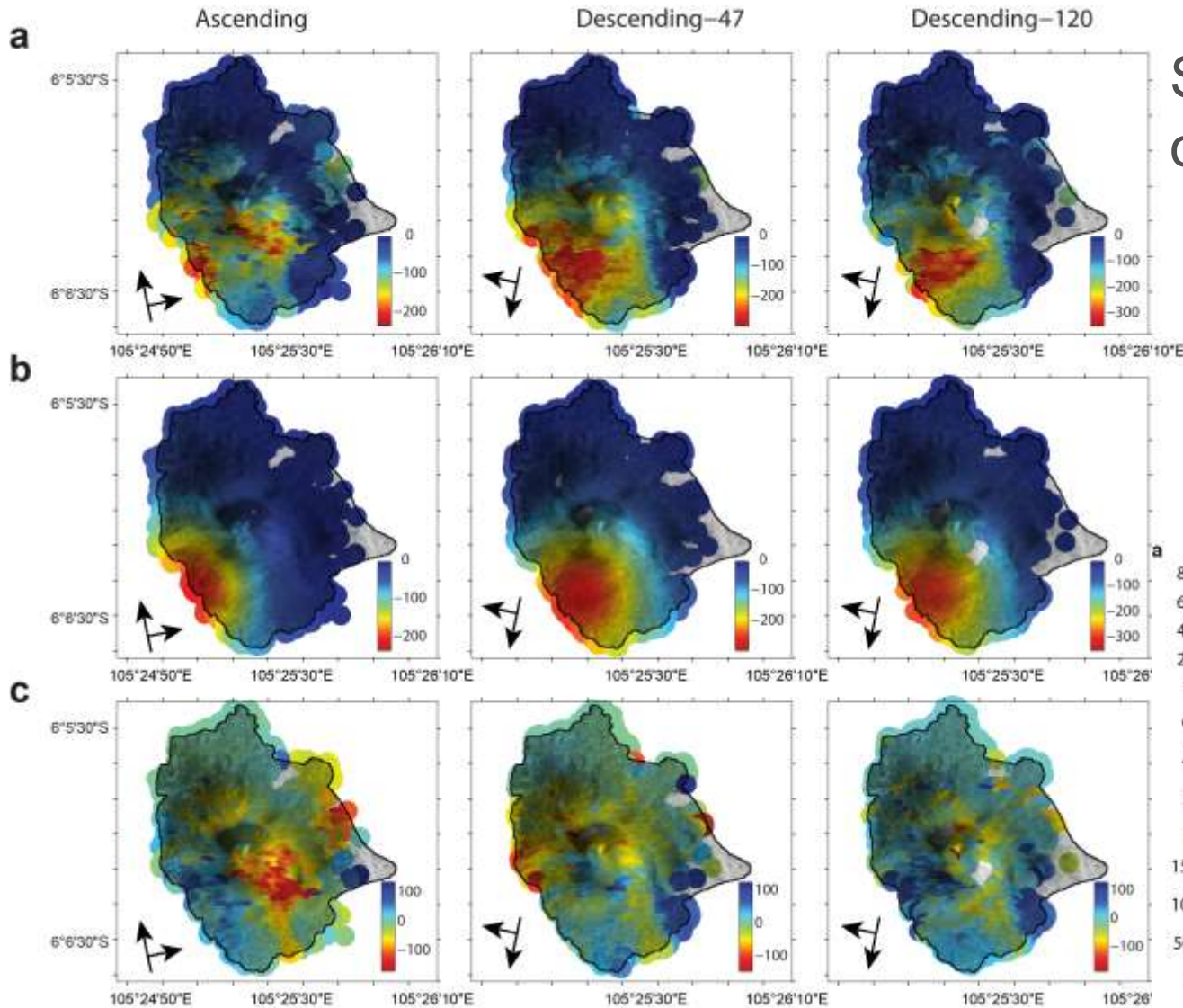
SECTOR COLLAPSE PRECURSORS

Moderate Imaging Spectroradiometer (MODIS)

20 year eruptive activity from MODIS thermal data



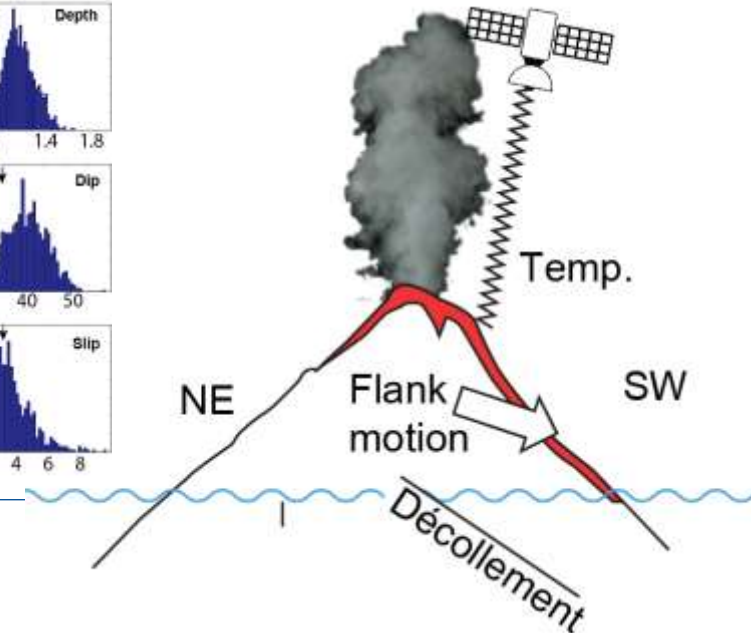
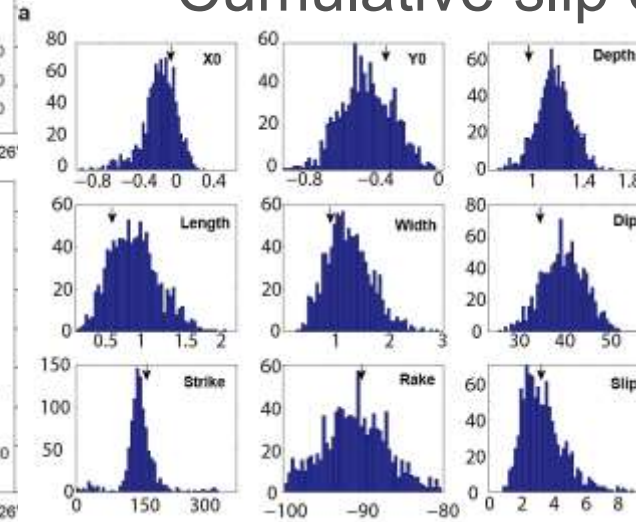
SECTOR COLLAPSE PRECURSORS



Sentinel-1 InSAR time series suggest over 20 cm flank movement in 2018

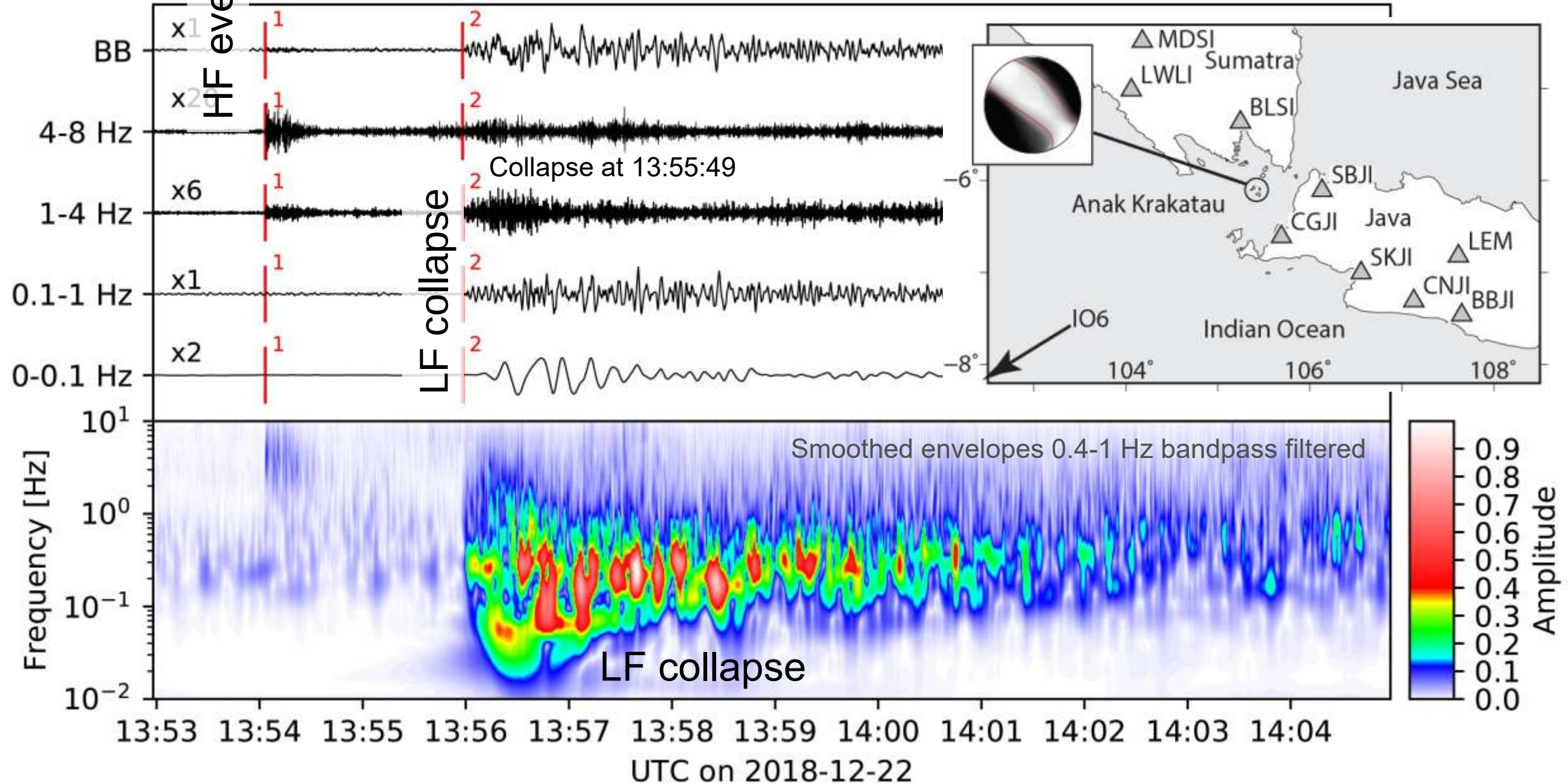
Modelling of flank movement:

- sliding plane $0.48 \times 1.24 \text{ km}^2$
- strike NW-SE at 162° , dip 34° .
- Cumulative slip 3.3 m

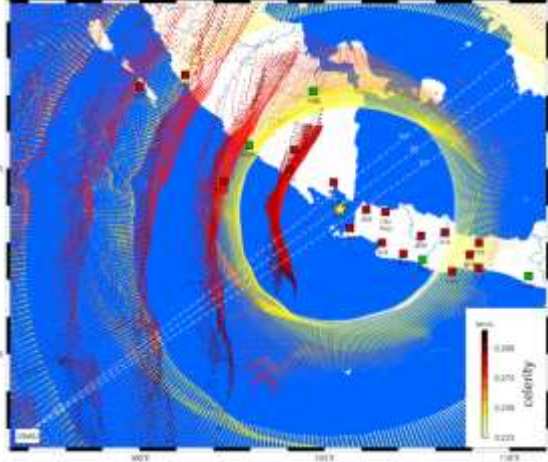


THE SECTOR COLLAPSE EVENT

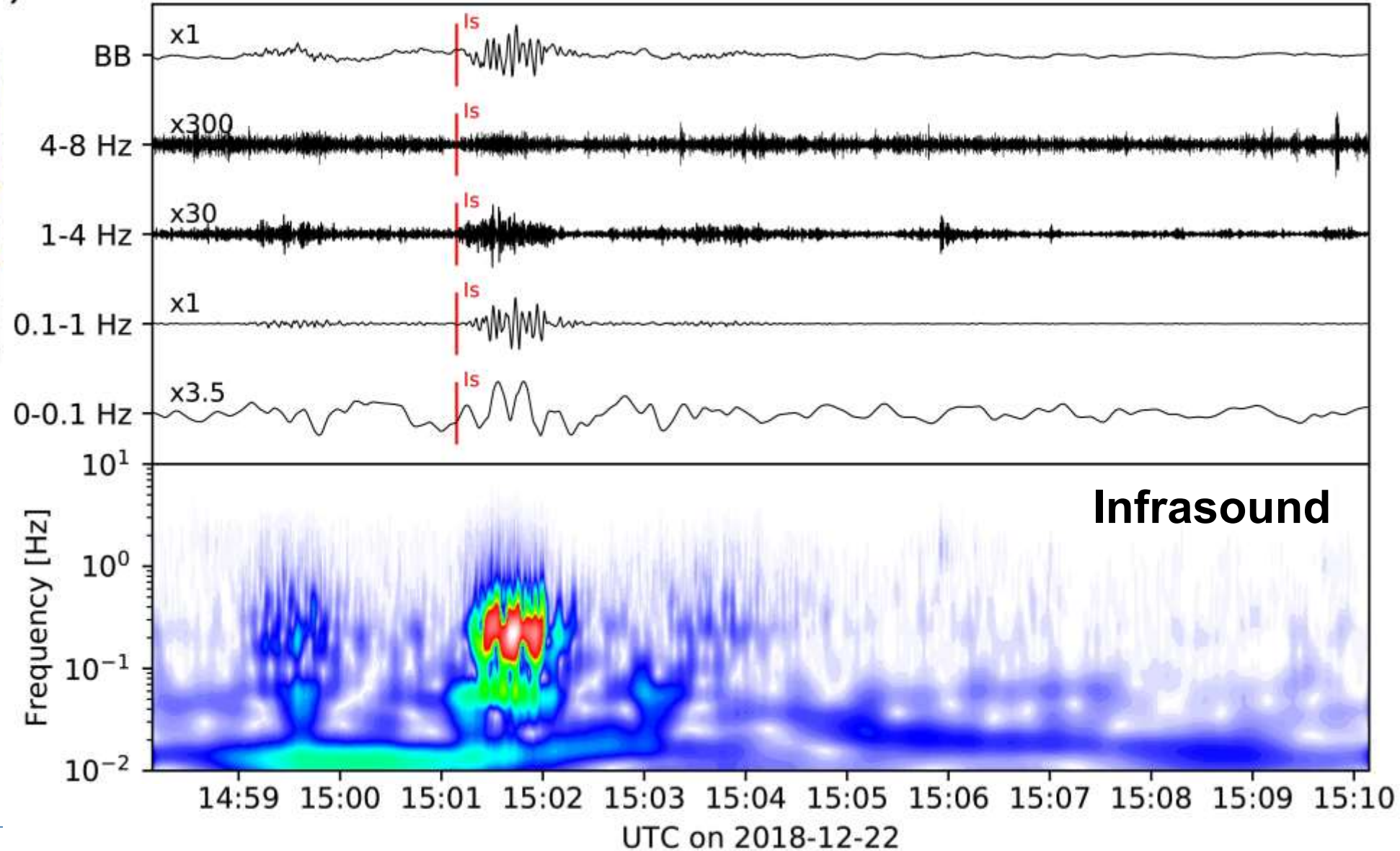
The closest seismic station CGJI 64 km distance



THE SECTOR COLLAPSE EVENT



The infrasound wave was identified at the infrasound array I06AU (a CTBTO station) >1,150 km away



SUMMARY

