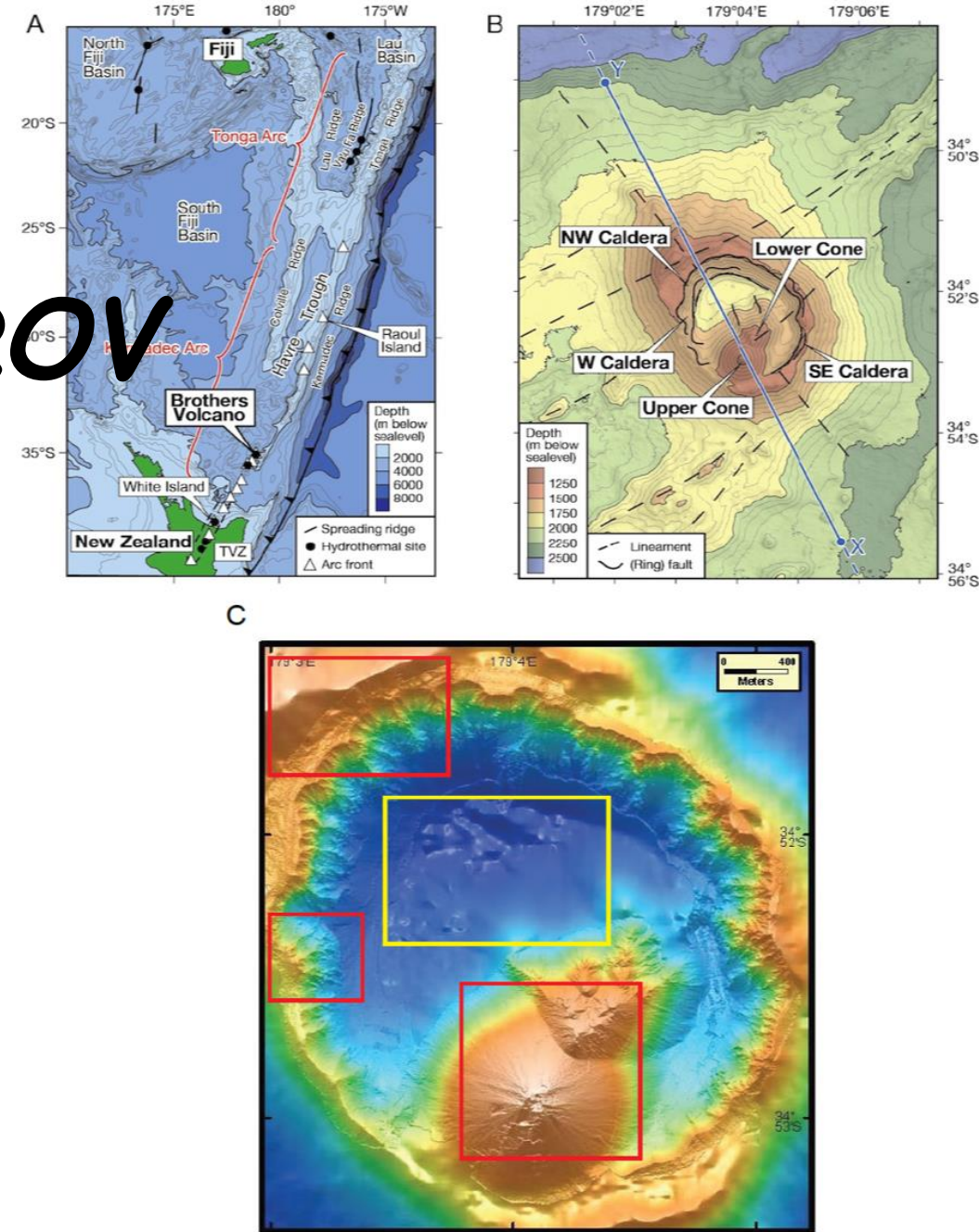


Brothers Volcano

March 6-26, 2018

R/V Thomas Thompson, ROV Jason

Humphris, Tivey, Reysenbach, Cornel de Ronde
and Fabio Caratori Tontini



Goals

- Document the magnitude of conductive heat flux through the caldera floor
- Map and image the hydrothermal vent fields and areas around the proposed IODP drill sites
- Determine the volcanic stratigraphy at Brothers through detailed caldera floor-to-rim mapping and sampling
- Investigate the relation between vent fluid chemistry, mineralization, and the composition of the vent microbiology.

Some issues, many successes

- Thompson dirty power
- Elevator lost
 - Heat blankets, major sampler
- Lost ~9 days to weather or technical issues
- Comprehensive heat flow probe (31) measurements
- Additional mapping and CTDO surveys (4)
- Magnetometer (3) surveys
- Extensive rock/chimney (~30) sampling
- Comprehensive water sample set (~14 gas tight and 14 Major)

179.070

