

HDS029-P03

Room:Convention Hall

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## Offshore active fault survey "Futagawa-Hinagu Fault Zone"(3) Result of piston-core sampling

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The Futagawa-Hinagu Fault Zone, traversing the Yatsushiro Sea in the NE-SW direction, extends from Mt. Aso to the Yatsushiro Sea. The offshore zones of the fault zone lack reliable information on termination of fault-trace, activity and faulting history. We have carried out a paleoseismological piston coring, as a part of the 2010 offshore active fault survey project funded by MEXT. The purpose of the investigation is to clarify the faulting history and activity (average slip rate) of the offshore fault zone.

The offshore fault zone of the Futagawa-Hinagu Fault Zone indicates the small-scale graben structure.

We decided the following 7 sites for piston coring, based on the results of high-resolution multichannel and ultra-high-resolution single-channel sonic surveys. We got the following 7 cores in the Yatsushiro Sea.

HG-1 (Core length : 6.52m)

Latitude / Longitude (WGS84) = 32:18:50 / 130:24:29

HG-2 (Core length : 6.75m)

Latitude / Longitude (WGS84) = 32:18:46 / 130:24:32

HG-3 (Core length : 2.59m)

Latitude / Longitude (WGS84) = 32:18:21 / 130:24:49

HG-4-2 (Core length : 1.96m)

Latitude / Longitude (WGS84) = 32:18:16 / 130:24:52

HG-7-2 (Core length : 4.65m)

Latitude / Longitude (WGS84) = 32:20:10 / 130:26:51

HG-8-2 (Core length : 14.34m)

Latitude / Longitude (WGS84) = 32:20:5 / 130:27:4

HG-9-2 (Core length : 8.16m)

Latitude / Longitude (WGS84) = 32:20:2 / 130:27:12

The piston cores of HG-7-2, HG-8-2 and HG-9-2 were obtained on both sides of the graben structure around the Shirakami-iwa where the Kumamoto Prefecture carried out the previous survey.

We are now carrying out various kinds of analyses and measurements, including facies, grain size, bulk density, magnetic susceptibility, soft X-ray, tephra and 14C dating. We intend to clarify faulting history and slip per event of each target fault.

### Acknowledgement

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Keywords: Offshore active fault survey, Futagawa-Hinagu Fault Zone, Yatsushiro Sea, Piston-core