

## Development of free-fall and pop-up ocean bottom tiltmeters

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We are developing free-fall and pop-up ocean bottom tiltmeters, which can be easily deployed and retrieved, to observe ocean floor tilt at many points. Maximum depth is 6000m, observation period is one year, and sampling interval is 30 min. Resolution is 10 nrad using bubble tilt sensor. We use 24bitA/D and SRAM for recorder. For power saving, we set that power is on only 3 min at the time of sampling. This machine can observe 2 components of tilt, temperature of inside and outside of it, and its direction. We conducted feasibility studies of this machine at land and ocean floor of shallow depth.