

## **Logatchev Longterm Hydrothermal Field Environmental Monitoring**

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The overall goal of the phase II of LOLEM will be the continuation of the monitoring program i.e. to recover and re-deploy all monitoring stations during all visits that are at the seafloor at the Logatchev Hydrothermal Field (LHF). We plan to increase the coverage of the LHF by adding more and improved stations for seafloor deformation and seismicity monitoring in order to assess the ridge magmatic activity. For this purpose we plan to test new and better sensors which were not available for phase I, first in the laboratory and thereafter in the field.

Caused by the working plan for SPP 1144 and the ship's schedule we do not yet have in situ data in our hands which would allow assessing the quality of data, the reliability of the instruments used, our measurement philosophy and the location where we deployed the stations. We are optimistic and assume that the instruments we developed and tested during phase I of LOLEM are to a large extent well suited for the monitoring task. Our strategy for the second phase is to stick to the existing equipment and invest more work in increasing the quality of components where we already see from laboratory tests their potentially great value for the project. Several small but not trivial problems have to be solved by more tests which could not have been done in phase I.