ATLANTIC LABORATORY (ATLAB) - CONSORTIUM FOR ACQUISITION OF GEOPHYSICAL RESEARCH DATA

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Atlab-3 members:
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ATLAB was started as an internally funded consortium at NTNU in 2016 with a primary aim of utilizing state-of-the-art geophysical equipment and new methods for collecting ultradeep passive magnetotelluric (MT) data and high-quality controlled-source electromagnetic (CSEM) data. ATLAB'S primary aim is to utilize a wide variety of geophysical data, to investigate the nature, dynamics, diversities, and resources at mid-ocean ridges and oceanic plates.

Since inception, ATLAB has acquired marine electromagnetic data (MT and CSEM), seismic data and environmental data at the Mohns- and Knipovich ridges in the Norwegian-Greenland Sea. The first result from the Mohns Ridge (Atlab-1) was published in Nature in 2019 and titled Deep electrical imaging of the ultraslow-spreading Mohns Ridge | Nature. The results from the Atlab-2 surveys across the northern Knipovich Ridge will be published in 2022 and the results from the new Atlab-3 surveys will be published next year.

The ATLAB consortium will contribute to expanded understanding of geological processes by combining process knowledge with advanced geophysical imaging. The consortium consists of companies and academic partners with diverse interests and competence in acquisition, processing, inversion, interpretation, and integration of geophysical research data combined with strong competence in geological processes.

Geophysical imaging of the subsurface will be achieved through collection of new, multiple, and diverse datasets that *could* consist of bathymetry, sub bottom profiles, high resolution p-cable seismic, streamer 2D regional lines, 3D seismic data, ocean bottom nodes with wide angle geometries, ultradeep seismic tomography, high frequency EM data including IP data, towed EM, ultra-deep EM (MT), active source EM and detailed seafloor EM collected by AUV.

The actual data collected in each survey are decided by the ATLAB members before each campaign. This year's Atlab-3 program consisted of deep MT data, CSEM data, towed EM data, seismic data and environmental data collected simultaneously with the geophysical data.