

From bottom landers to observatory networks

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Abstract

For a long time, deep-sea investigation relied on autonomous bottom landers. Landers can vary in size from 200 kg weight to more than 2 t for the heaviest scientific landers and are used during exploration cruises on medium periods, from one week to some months. Today, new requirements appear. Scientists want to understand in detail the phenomena outlined during exploration cruises, to elaborate a model for future forecasting. For this, it is necessary to deploy instrumentation at a precise location often for a long period. A new mode of ocean science investigation using longterm seafloor observatories to obtain four dimensional data sets has appeared. Although this concept has been proposed for many years, the high level of investment required limits the number of projects implemented. Only multidisciplinary programs, supported by a strong social requirement were funded. Some observatories have been deployed.

Keywords

landers; multidisciplinary long term observatories; global change; seismology; environment

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References

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
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