

EARS, the European event logger and reporting system onboard research vessels

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Basic information on a measurement or sampling gear deployment, like location and time, form the core of the meta data that should accompany any measurement or observation during a cruise. Processing and interpretation of marine data are often conditioned by unanticipated events or anomalies. The software EARS, the Eurofleets Automatic Reporting System, is being developed to record a wide range of actions to account for any possible event during a cruise, including any malfunction occurring or any observation done. The system will also allow the automatic production of standardized summary and event reports for scientists, data centres and international data dissemination initiatives. This will simplify the work of scientists and data managers with regard to data transmission.

The EU-funded project EUROFLEETS is an alliance of marine research vessels across Europe sharing resources to improve the quality of marine research in Europe (www.eurofleets.eu). The Belgian Marine Data Centre (BMDC, www.mumm.ac.be/datacentre) is highly involved in the elaboration of the Eurofleets reporting tool by developing the manual event logging module.

The events should be constructed based on standardized terms with the introduction of a multilingual perspective. As a first step, an ontology system to be used as knowledge base was developed. This ontology contains the fundamental pieces of information that form an event, their relevance, the relationships between them and the constraints. The approach enables the incorporation of well established controlled vocabularies used in the marine and environmental sciences (e.g. SeaDataNet http://seadatanet.maris2.nl/v_bodc_vocab/welcome.aspx/).

Flexibility and user friendliness are two very important factors. Scientists don't have much time onboard while sampling and conditions at sea can be very hard. The logging of an event can be done with only one action. Besides that, the system is very flexible, a configuration of interlinked standard terms can be prepared in advance for any scientific discipline. In case of missing terms, additions are possible.

A 24h events report will be incorporated in standardized reports for *en route* data transmission to shore. A complete event report is prepared and CSR production is foreseen.