OPERATIONAL OCEANOGRAPHY, SCOPE AND CHALLENGES

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ABSTRACT

An environmental discipline cannot be considered as “operational” unless three conditions are met: existence of a market (user needs), sufficient scientific knowledge (existing theory) and useful available technology (observation, communication, computing). It happened early in the 19th century for Meteorology and only in the last decades for Oceanography. Based on the history of the Mercator ocean forecast system, the lecture will present an overview of recent development having enabled oceanography to become really operational. It will highlight the necessity to ensure a coherent approach associating space and in situ observation programmes to the development of monitoring and forecast centres. An outlook to the future will be given, considering the challenges for facing global change and managing sustainable development, in the light of new political initiatives like GMES in Europe and the GEOOS at international level.