



The Second International Indian Ocean Expedition (IIOE-2)

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The International Indian Ocean Expedition (IIOE) was one of the greatest international, interdisciplinary oceanographic research efforts of all time. Planning for the IIOE began in 1959 and the project officially continued through 1965, with forty-six research vessels participating under fourteen different flags. The IIOE motivated an unprecedented number of hydrographic surveys (and repeat surveys) over the course of the expedition covering the entire Indian Ocean basin. And it was an interdisciplinary endeavor that embraced physical oceanography, chemical oceanography, meteorology, marine biology, marine geology and geophysics.

The end of 2015 will mark the 50th Anniversary of the completion of the IIOE. SCOR and the IOC are working to stimulate a new phase of coordinated international research focused on the Indian Ocean for a 5-year period beginning in late 2015 and continuing through 2020. The goal is to help to organize ongoing research and stimulate new initiatives in the 2015–2020 time frame as part of a larger expedition. Several International programs that have research ongoing or planned in the Indian Ocean during this time period and many countries are planning cruises in this time frame as well. These programs and national cruises will serve as a core for the new Indian Ocean research focus, which has been dubbed “IIOE-2.”

The overarching goal of the IIOE-2 is to advance our understanding of interactions between geological, oceanic and atmospheric processes that give rise to the complex physical dynamics of the Indian Ocean region, and to determine how those dynamics affect climate, extreme events, marine biogeochemical cycles, ecosystems and human populations. This understanding is required to predict the impacts of climate change, pollution, and increased fish harvesting on the Indian Ocean and its nations, as well as the influence of the Indian Ocean on other components of the Earth System. New understanding is also fundamental to policy makers for the development of sustainable coastal zone, ecosystem, and fisheries management strategies for the Indian Ocean. Other goals of IIOE-2 include helping to build research capacity and improving availability and accessibility of oceanographic data from the region. The IIOE-2 Science Plan is structured around six scientific themes. Each theme comprises a set of core questions fundamental to our need to understand the forcings, processes, and resultant variability of the Indian Ocean and to develop the capacity to predict how this variability will impact human populations in the future.

In this presentation we will report on current efforts to motivate an IIOE-2 and we will present the draft science plan that has been commissioned by SCOR.