Introduction to info sheets on Ocean-based observations

The observing systems for the ocean areas are based on field experiments with ships and icebreakers in the central Arctic Ocean, in the Svalbard area, the Fram Strait, Barents Sea, Baffin Bay and in the coastal waters of Greenland. Data are collected along the sailing routes from ships carrying atmospheric and oceanographic instruments, mainly during the summer when most of the ship cruises take place. Icebreakers are used to deploy and recover instruments in ice-covered areas, in particular drifting ice buoys (SIMBA and ITP buoys), oceanographic and acoustic moorings and seafloor observatories that operate continuously through the year. During ice stations in situ measurements of sea ice thickness and snow cover are obtained together with atmospheric and ocean observations. In the ice-free waters Argo floats are gliders are also used. In addition to physical oceanography, data collection included biogeochemical variables (pCO_2, pH), isotope analysis, optical measurements, and passive acoustics. significant part of the work is devoted to test the instruments and prepare for deployment and recovery during the field expeditions. Calibration, processing and analysis of the collected data is performed before uploading to various data repositories.