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Cruise Report of Scientific Cruise LF24/91

30/9/1/10/91

Cruise personnel

C.E.Gibson (SIC)
R.Gowen (SSO)
B.Stewart (HSO)
P.Elliott (ASO)
R.Baillie (ASO)
Ms.A.Dymond (student)

Cruise narrative

The vessel departed from Belfast at 09.15 on Monday 30 September and proceeded immediately to station 4. In view of the poor weather forecast, the original cruise schedule was greatly reduced and a line of stations was worked proceeding directly southwards. Productivity measurements were carried out in the northern stations, and depth profiles were sampled at hourly intervals. The TRAACS analyser was installed for the voyage and performed well. It enabled the samples to be analysed directly after sampling. Stations were worked in the open sea until 21.20 when the sea was too rough to allow the safe deployment of the rosette sampler. The vessel was then turned westwards and arrived at the coast at 01.25. A series of coastal stations was then worked, steaming northwards. The wind continued at gale force, but there was sufficient shelter from the land to allow safe working to continue until the most northerly station was reached at 11.30. As the forecast was for continuing gales, the vessel returned to harbour and docked at 15.00.

In spite of a reduced work programme, sufficient data was collected to show that the intense stratification in the middle work area had almost disappeared. Oxygen samples near the bottom showed that there was significant oxygen depletion where the cold water layer persisted. The coastal samples will be of interest in the context of coastal inputs. They showed higher nutrient concentrations, particularly of silica, than in the open water surface samples. Phytoplankton crops were low throughout.

Thought needs to be given to the method of loading and unloading the scientific equipment. It is not practicable to use the gang way, since this entails carrying heavy items to the upper deck, then manoeuvring them down the companionways to the laboratory, yet the use of the telescopic crane exposes the delicate instruments to considerable risks. The simplest solution would be a further properly constructed ramp giving access to the laboratory deck. This will be explored further.