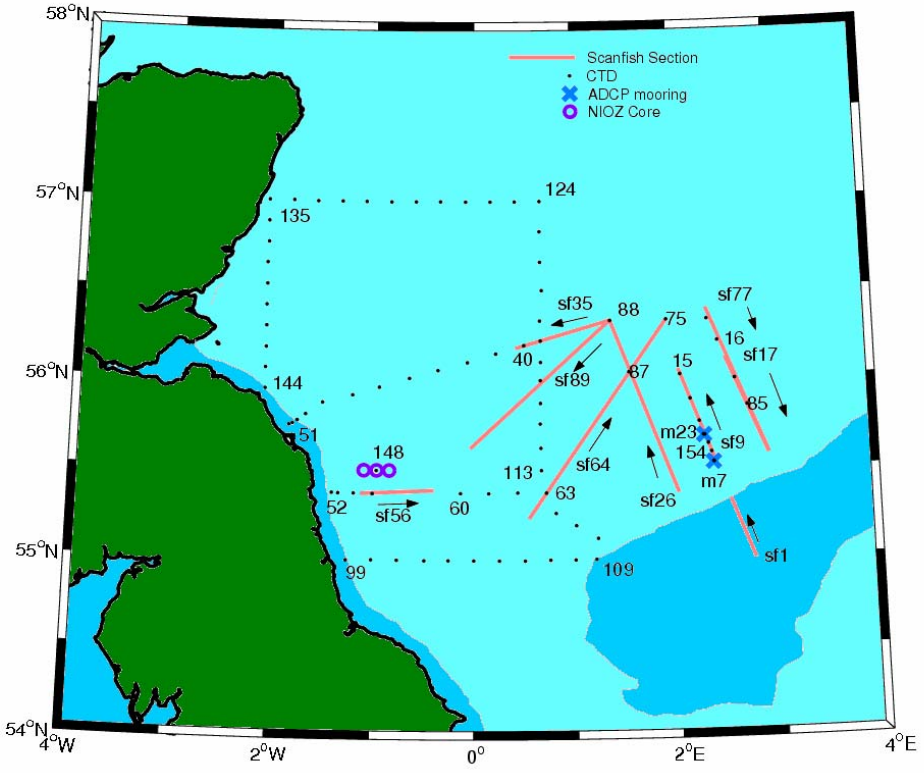
Figure 1: Cruise track and station summary. Darker blue represents depths shallower than 40m.



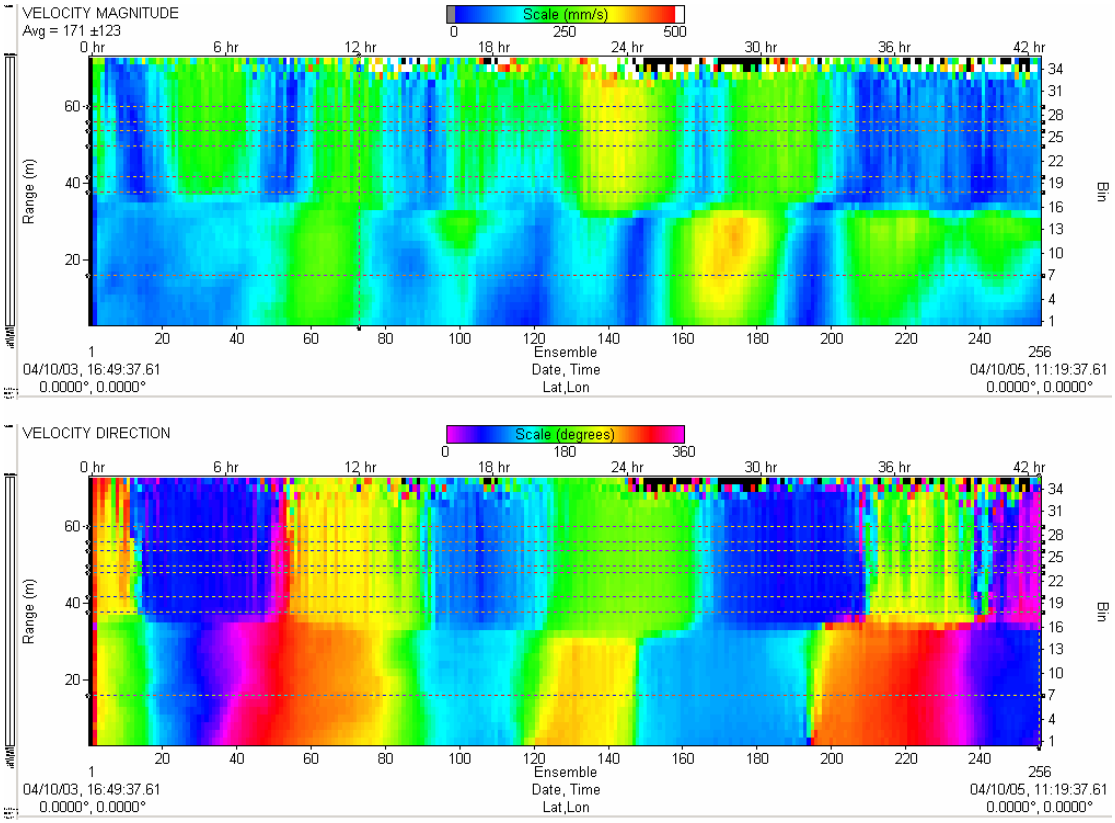
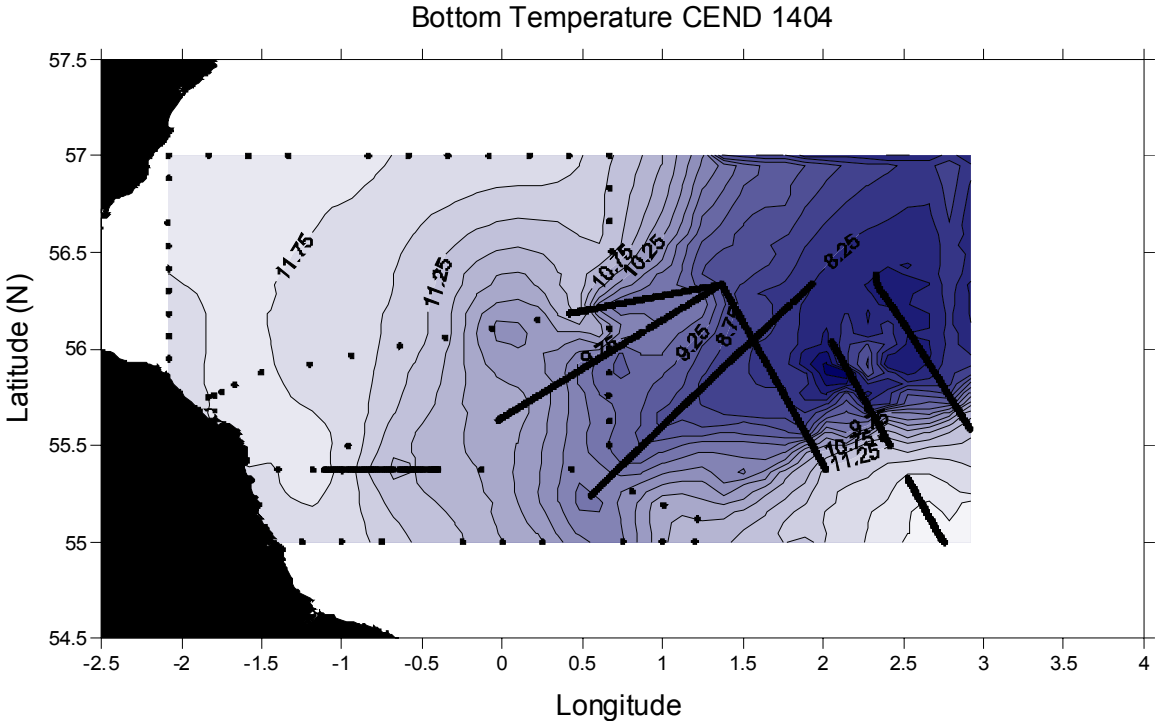


Figure 2: ADCP data from 42 hours of 50 day record of 600 kHz ADCP-B (**m23**) clearly showing the effect of stratification on the tidal phase, with strong shear at the thermocline evident at certain times of the tidal cycle is likely to be an important source of turbulence where the water column structure is thermally stable.

Figure 3: Bottom temperature (°C) contours from the CTD and Scanfish data shows the strong horizontal gradients associated with bottom fronts north of the Dogger Bank persisted until late October in 2004.



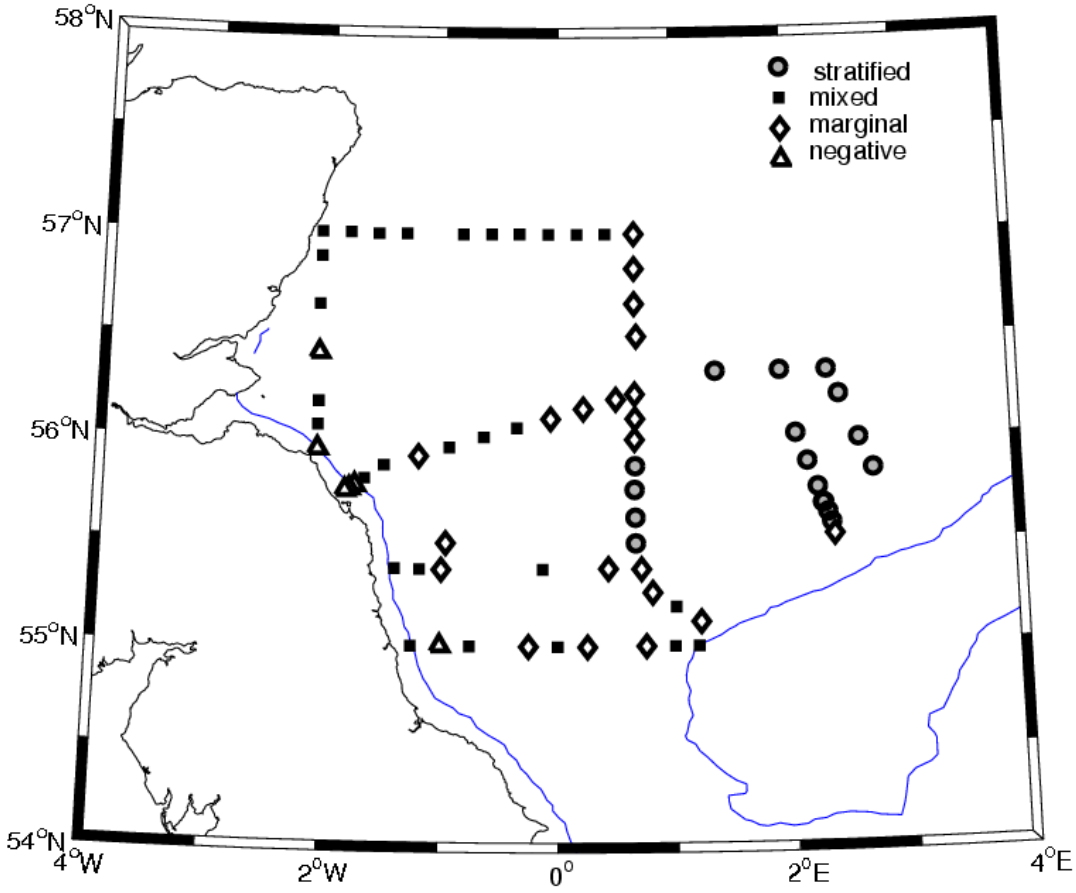


Figure 4: Top to Bottom temperature (°C) difference from the reversing thermometers on all the CTD casts. Stratified conditions where the temperature difference was found to be > 1°C, marginal where this difference is >0.1°C and negative where the difference is <-0.2°C. Negative thermal stratification is seen towards the east coast and is indicative of an increase in importance of freshwater in maintaining the density contrast between top and bottom of the water column. Strongly stratified conditions were observed in a more limited region than the previous cruises as the seasonal structure breaks down over the autumn months. Interestingly the 'cold pool' region is limited to the region immediately north of the Dogger Bank, further west and north the observed stratification was marginal.

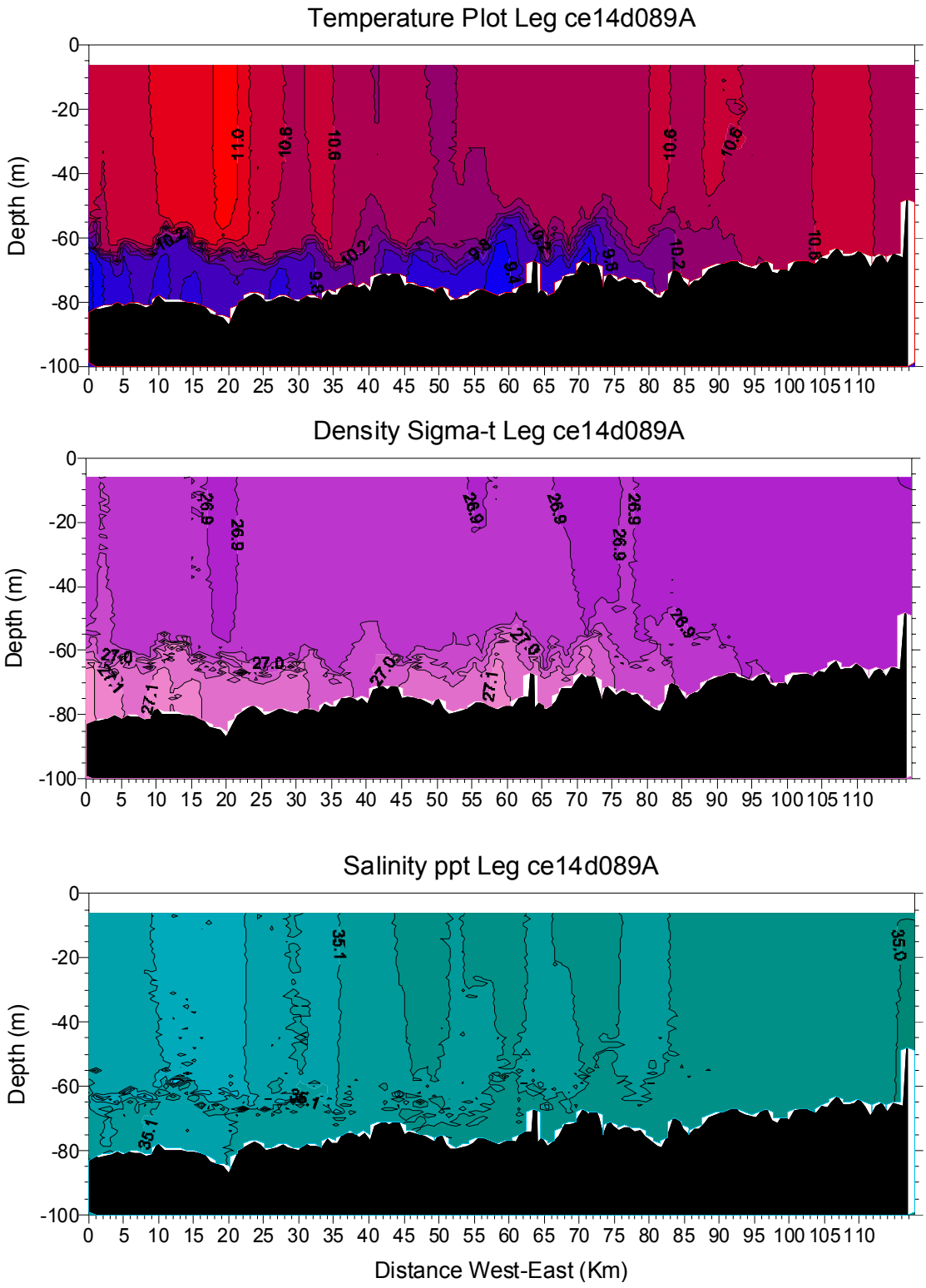


Figure 5: Temperature, density and salinity sections from the final Scanfish line (**sf89**) on CEnd1404 starting in the stratified region and heading south-west. The thermocline at the start of the section exhibits 1-1.5 °C of stratification over about 5m with a well mixed surface layer of some 60m in depth that has been gradually deepened over the 2 months of this experiment by cooling and wind mixing from the surface.