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Anthropogenic Carbon along a North Atlantic Transect

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In autumn 2005 former WOCE transect AR7E (a quasi-zonal section between Greenland and Ireland) was revisited by the Dutch R/V *Pelagia*, measuring nutrients, oxygen, DOC, TCO_2 and TAlk at 36 stations, thereby lengthening a timeseries that goes back to TTO-NAS (1981, only generally the same transect) and has seen several occupations since (e.g. 1991). Of this latest cruise basic statistics and results are presented. The increase in the concentration of dissolved inorganic carbon, due to the influx of 'anthropogenic' CO_2 from the atmosphere during the years since previous occupations, is quantified using different approaches (e.g. direct subtraction, eMLR). Also, the total amount of anthropogenic carbon along the section is quantified using different methods (e.g. TrOCA, ΔC*). Differences in the results obtained using the different methods are discussed and attributed.