



Wintertime sea ice distribution (in white) in the north polar region, juxtaposed with arrows indicating prominent warm (red) and cold (blue) currents. The ice distribution is the average February distribution for 1979–2005, from satellite data. Warm currents limit ice coverage, by keeping temperatures above the freezing point, while cold currents often transport ice far to the south of where it initially formed. Note in particular the influence of the Gulf Stream and North Atlantic Current, which transport warm water across the Atlantic and northward to the west and north of the British Isles, restricting the southward expansion of the ice cover in the Barents Sea (latitudes 70–80°N). (Ice data for 1979–1987 from the SMMR instrument on the Nimbus 7 satellite, and for 1988–2005 from the SSMI instruments on the DMSP F8, F11, and F13 satellites.)