

MAJOR GLOBAL OCEAN CURRENTS

Comprehensive Hydrographic Reference Chart

Warm Currents (Low to High Latitude)

Cold Currents (High to Low Latitude)

OCEAN BASIN	CURRENT NAME	CLASSIFICATION	PRIMARY CHARACTERISTICS
North Atlantic	Gulf Stream	Warm	Intense western boundary current; regulates NW Europe climate.
North Atlantic	Canary Current	Cold	Eastern boundary current; flows south along African coast.
South Atlantic	Brazil Current	Warm	Southward flow along the South American East Coast.
South Atlantic	Benguela Current	Cold	Significant upwelling; flows north along African West Coast.
North Pacific	Kuroshio Current	Warm	Pacific equivalent of the Gulf Stream; flows past Japan.
North Pacific	California Current	Cold	Cooling effect on US West Coast; nutrient-rich waters.
South Pacific	Humboldt (Peru) Current	Cold	High productivity; crucial for global fisheries.
Indian Ocean	Agulhas Current	Warm	Strong western boundary current along SE Africa.

OCEAN BASIN	CURRENT NAME	CLASSIFICATION	PRIMARY CHARACTERISTICS
Southern Ocean	Antarctic Circumpolar	Cold	World's largest current; connects Atlantic, Pacific, and Indian.
Arctic Ocean	East Greenland Current	Cold	Major export of sea ice from the Arctic basin.

Chart Reference: Global Thermohaline Circulation Data Index © 2024