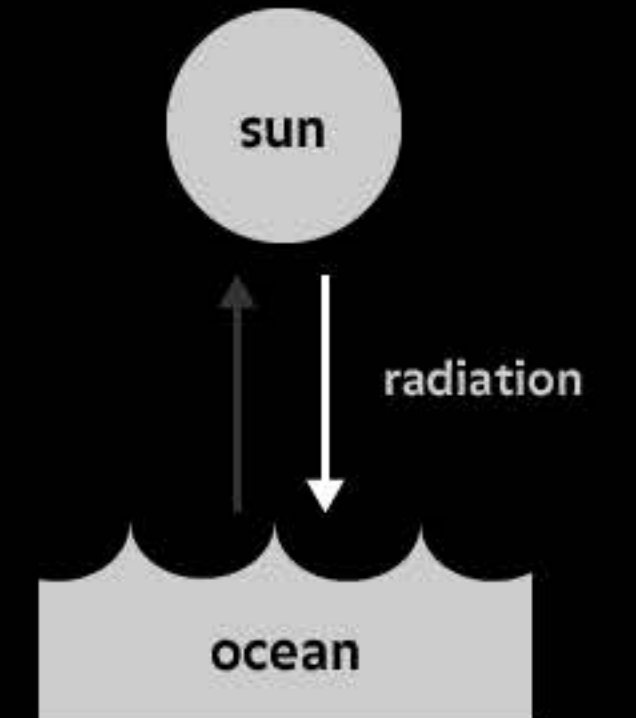


2014 ↓ Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

The ocean receives most of its heat along the equator from incoming direct radiation from the **sun**.



2014

Jan

Feb

Mar

Apr

May

Jun

Jul

Aug

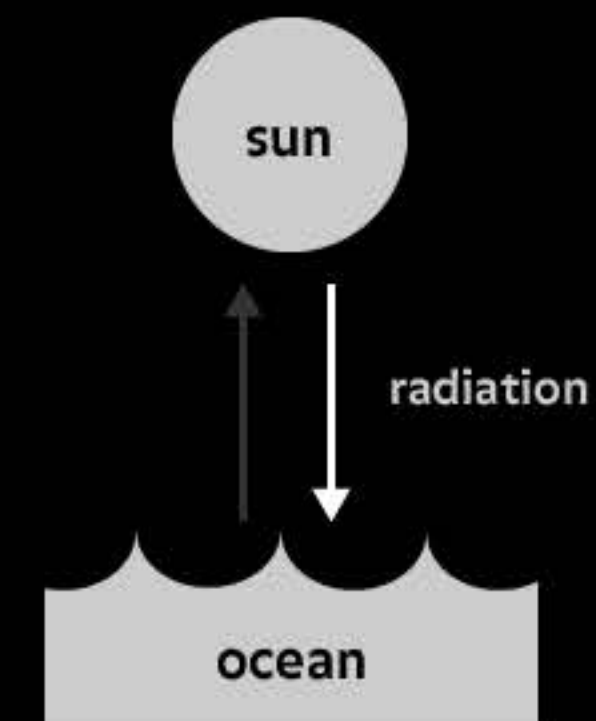
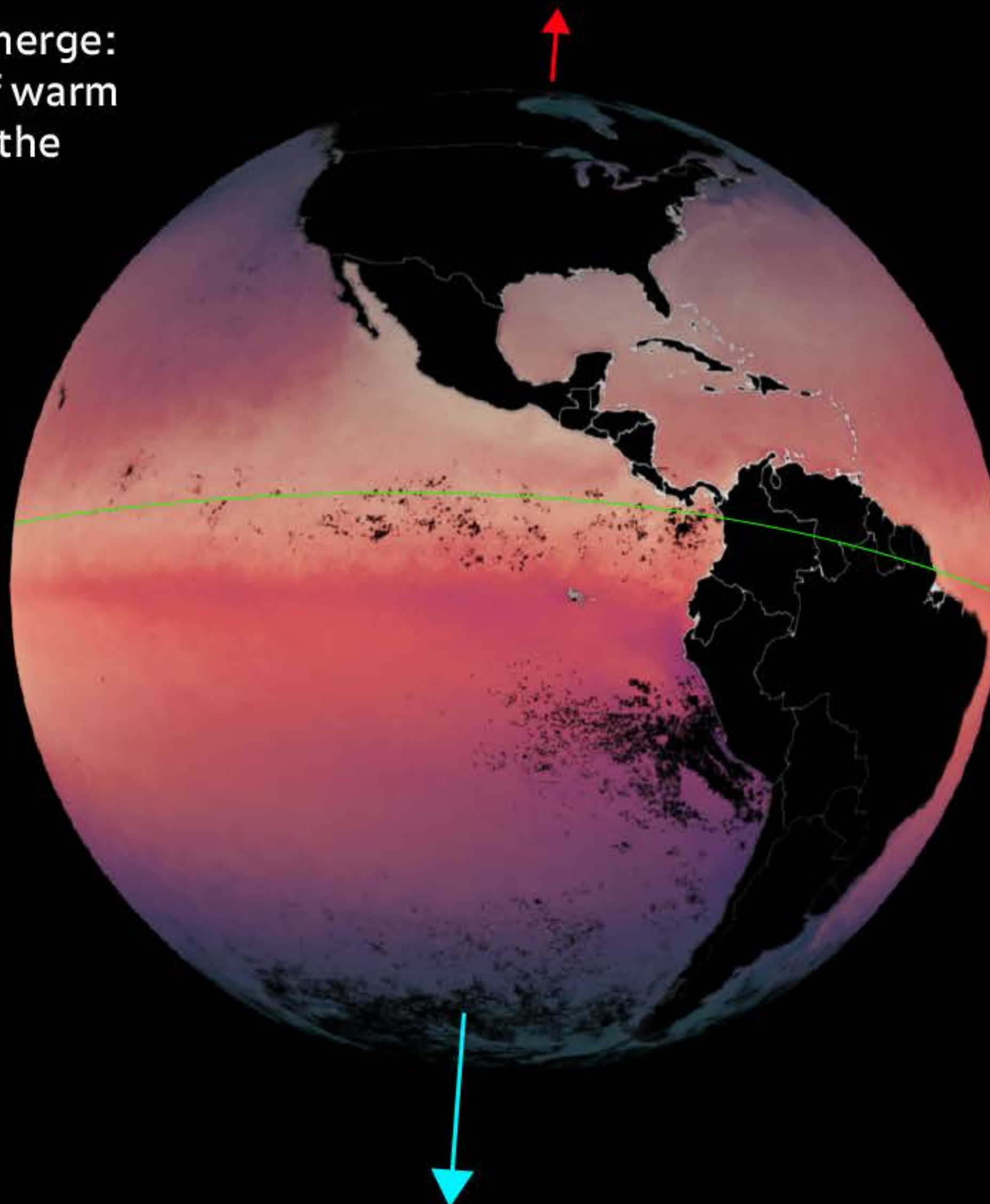
Sep

Oct

Nov

Dec

Over time, **seasonal patterns** emerge: due to the **Earth's tilt**, a band of warm water shifts north and south as the Earth revolves around the sun.



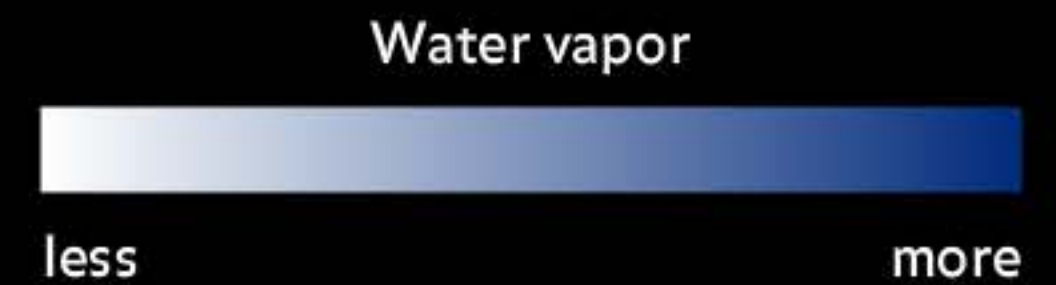
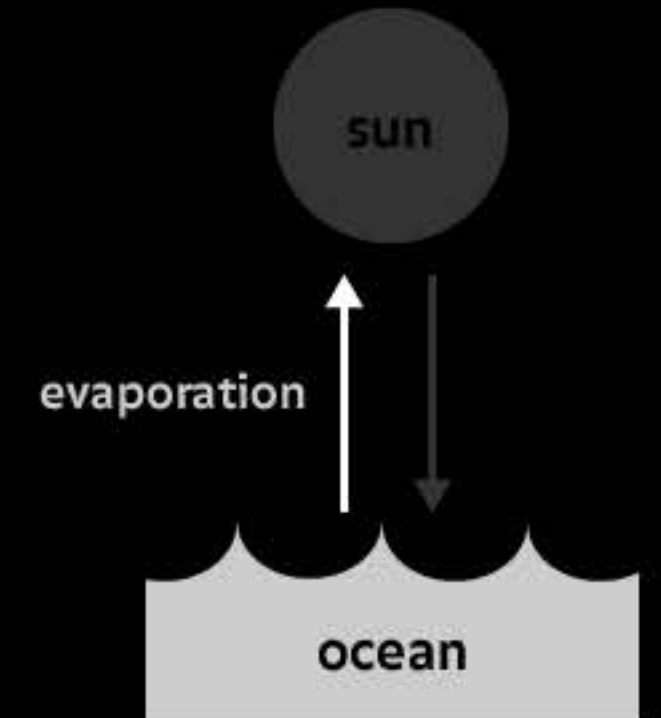
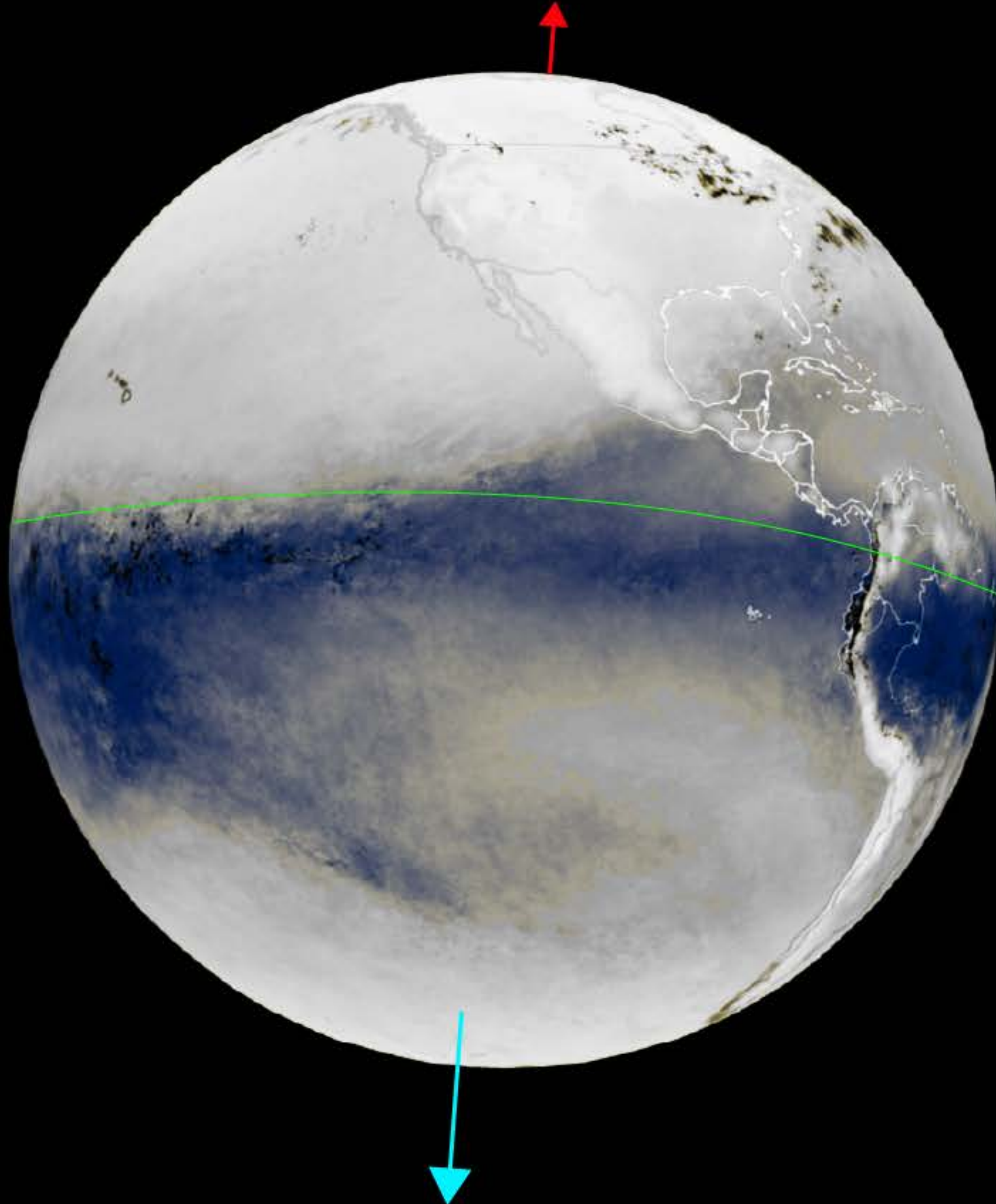
Sea surface temperature

cooler

hotter

2016 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Heat escapes the ocean as **water vapor** and rises to warm the overlying atmosphere.



2016

Jan

Feb

Mar

Apr

May

Jun

Jul

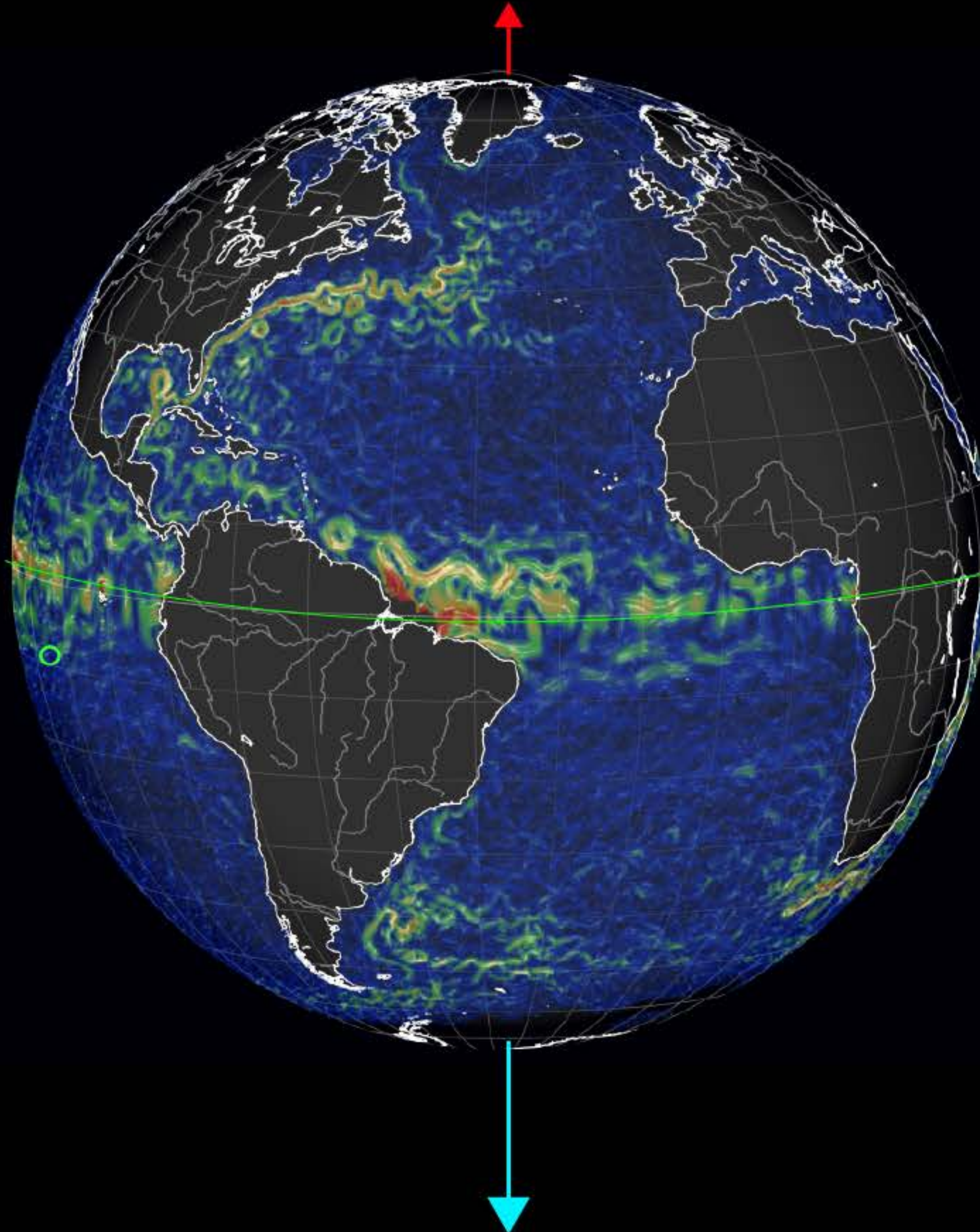
Aug

Sep

Oct

Nov

Dec



Warm air creates air temperature gradients making wind that drives ocean **current patterns**.

