

Salinity Processes in the Upper Ocean Regional Study
NASA Jet Propulsion Laboratory
Video Transcripts

Video: Ocean Memory and the Flywheel of Climate

URL: <https://vimeo.com/58196030> [01:17]

Description

Dr. Eric Lindstrom talks about the ocean's memory and how it plays a role in regulating climate.

Transcript

The ocean is the memory of the climate system. It is able to hold heat characteristics. If you have a warm summer, the ocean warms up. Then you might have a mild fall because the ocean is still giving off the heat off your coast. You see that. People warm their houses where they'll use warm water and things and it stays a long time. Whereas the atmosphere doesn't have any memory at all. You go out on a fall day and you're not remembering what happened in July. But if you go into the water you're remembering what happened in July.

So the climate system of the Earth is run ... basically we call the ocean the flywheel of climate. It's got all this momentum. It's what keeps the engine of climate ticking over. We change it at our peril. With global warming most of the extra heat that's in the greenhouse situation is going into the ocean. The ocean is warming and expanding; the sea level is rising. We will have the memory of global warming for centuries to come. Even if we stop putting CO₂ into the atmosphere the ocean will remember what we did for hundreds of years.