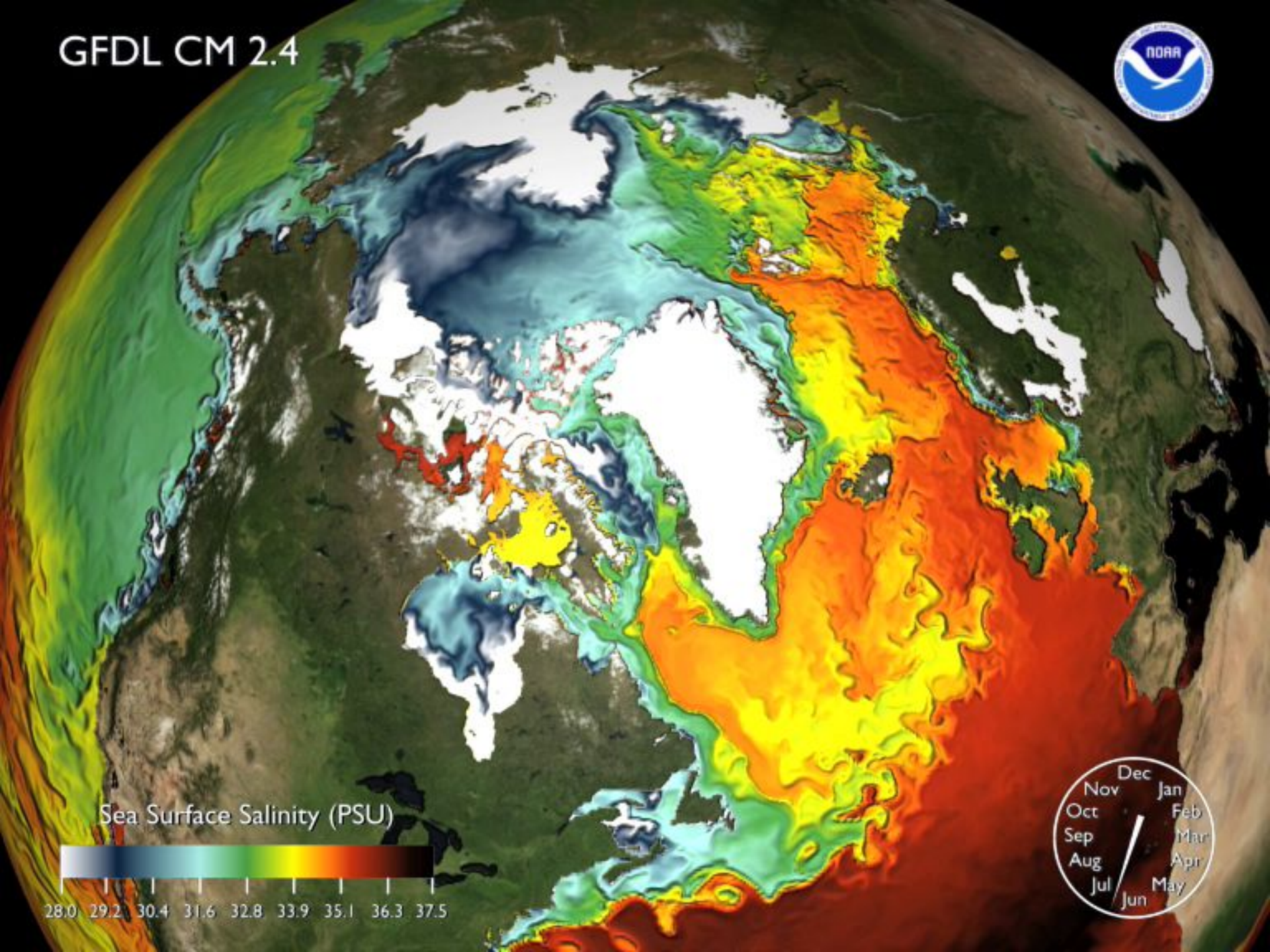


Are the oceans getting saltier?

Introduction

- * In April 2011, NASA plans to launch the Aquarius satellite into orbit with a mission of answering a critical question about the Earth below: how is the salinity of Earth's ocean changing?
- * A remote-sensing sea surface salinity satellite (SSS), Aquarius will record how much salt ocean waters contain across the globe.

GFDL CM 2.4



Sea Surface Salinity (PSU)



Let's talk about salinity

- * Measuring the amount of salty ocean seasoning might seem like a trivial venture considering the cost and scale of the project, which has been in development for around a decade. But ocean salinity is about a lot more than just salt.
- * “Salinity, along with temperature, determines the density of the seawater, which will drive the 3-D ocean circulation that plays a key role in modulating the climate,” said Yi Chao, project scientist on the Aquarius mission.

Why it's useful to know the current level of the World Ocean salinity?

- * Consequently, ocean salinity is a barometer for change in the global water cycle — the rate of precipitation versus evaporation — it can also lend clues as to the rates at which water temperatures are rising and ice sheets are melting.
- * As ocean temperature has risen in recent decades and ice sheets have melted at faster rates, studies have indicated that, on average, seawater is becoming fresher. Yet, site-specific salinity surveys also note that subtropical regions (25 to 30 degrees latitude) in particular have actually gotten saltier.

Thanks for watching!

