

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

**Video: An Intensification of Extremes**

**URL:** <https://vimeo.com/58200775> [1:25]

**Description**

Dr. Raymond Schmitt discusses intensification of the water cycle and how this will impact society.

**Transcript**

...is a key issue of how strong the water cycle will intensify in the future, because that's why we're getting these more intense flooding events and these long term droughts. The basic issue is that more moisture in the atmosphere intensifies all kinds of atmospheric storms. The tornado outbreaks that occur in the U.S. are because we have warm moist air coming from the Gulf of Mexico colliding with cold dry Canadian air. If the contrast is greater because the air is a little warmer and little moister coming from the Gulf of Mexico, then we're more likely to get strong storms and more likely to get tornados. Hurricanes can be stronger if there is more moisture in the atmosphere.

It's an intensification of extremes that is really going to impact society. The cities have to deal with more flooding and heavier rainfall. Farming areas have to worry about drought. That's the puzzle we're trying to work out.

The key thing is that most of the water cycle is over the ocean. We're trying to figure out what's going on in the ocean, and how we can best assess the changes by looking at the ocean salinity.