

# The NASA Energy and Water cycle Study (NEWS)

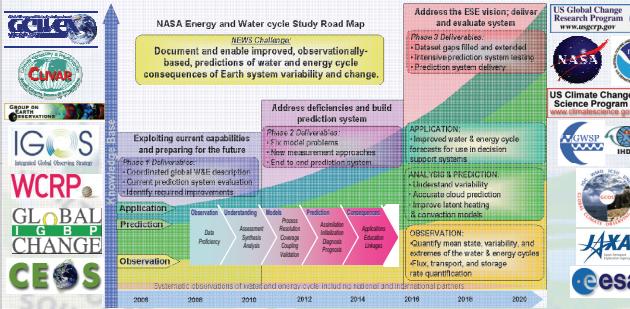
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## Overview

The NASA Earth science research program has established the NASA Energy and Water cycle Study (NEWS) that has the long-term grand challenge to **document and enable improved, observationally-based, predictions of water and energy cycle consequences of Earth system variability and change**. To achieve this goal, NASA collaborates with other Federal agencies including NOAA, NSF, DoE, USGS, DoI, the DoA, the scientific community-at-large, private industry, and the international community is through the World Climate Research Programme (WCRP), especially GEWEX & CLIVAR.

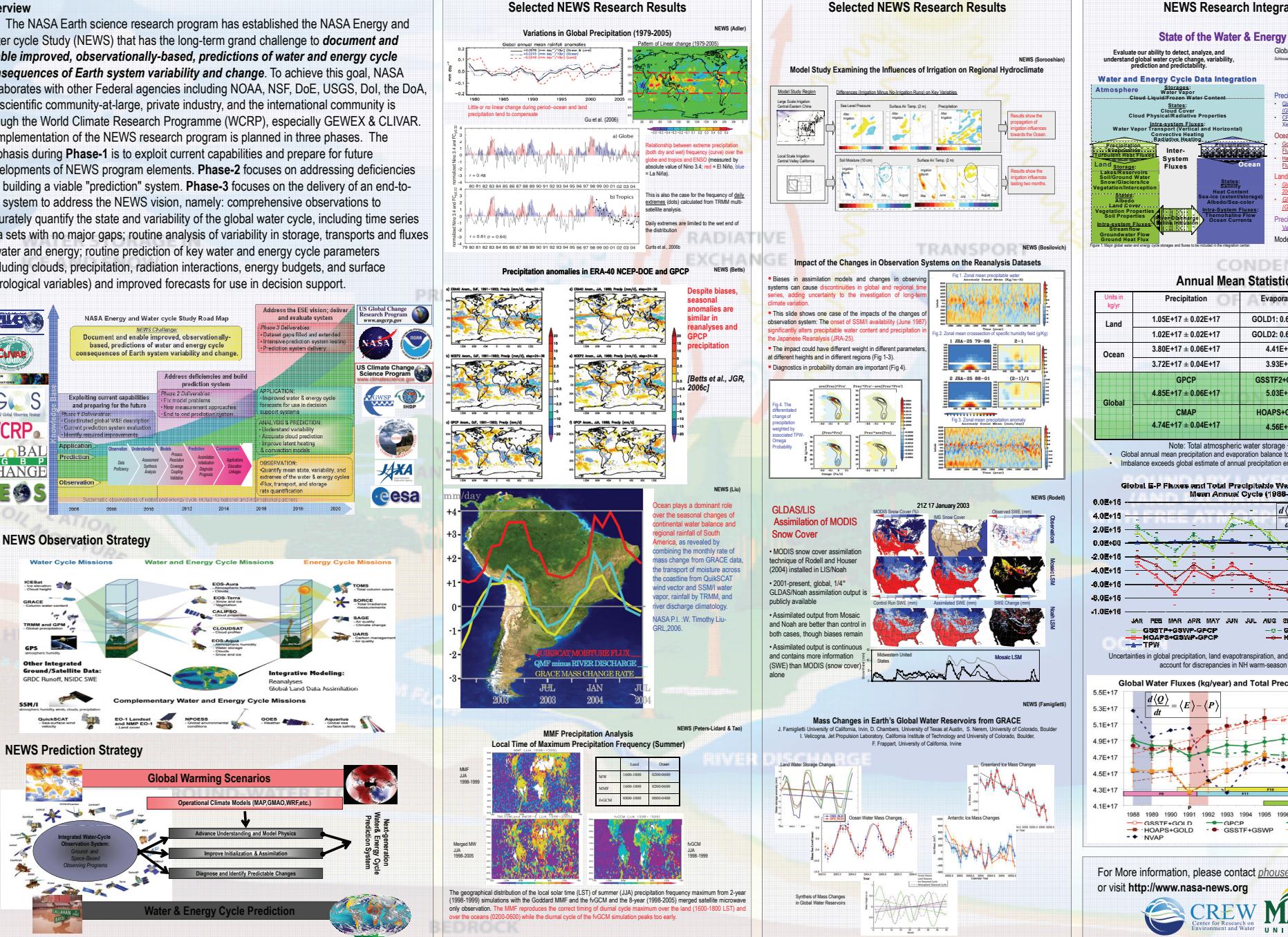
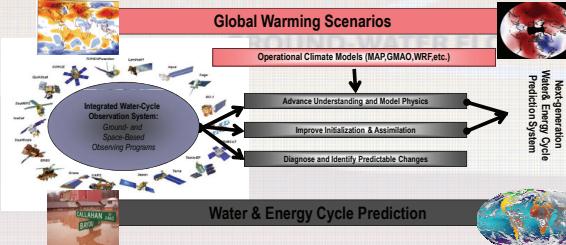
Implementation of the NEWS research program is planned in three phases. The emphasis during **Phase-1** is to exploit current capabilities and prepare for future developments of NEWS program elements. **Phase-2** focuses on addressing deficiencies and building a viable "prediction" system. **Phase-3** focuses on the delivery of an end-to-end system to address the NEWS vision, namely: comprehensive observations to accurately quantify the state and variability of the global water cycle, including time series data sets with no major gaps; routine analysis of variability in storage, transports and fluxes of water and energy; routine prediction of key water and energy cycle parameters (including clouds, precipitation, radiation interactions, energy budgets, and surface hydrological variables) and improved forecasts for use in decision support.



## NEWS Observation Strategy



## NEWS Prediction Strategy



For More information, please contact [pouser@gsu.edu](mailto:pouser@gsu.edu) or visit <http://www.nasa-news.org>

