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Earth Information System (EIS)

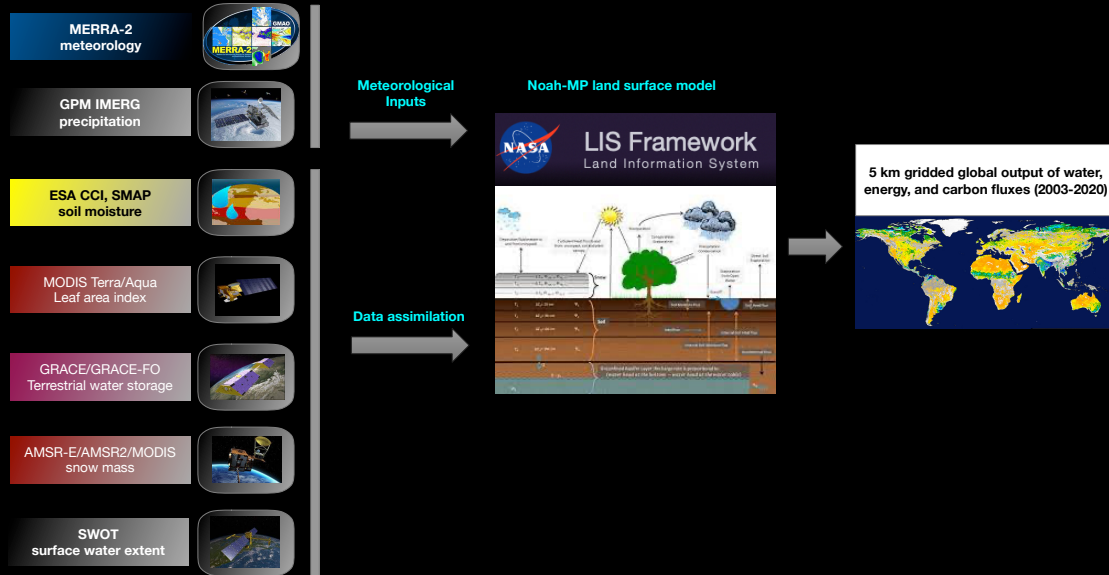
Monthly Highlights
February 2024



<https://www.earthdata.nasa.gov/eis>



Updating the global terrestrial water cycle synthesis



The EIS team is developing an updated global land reanalysis dataset informed by a comprehensive set of remote sensing observations of precipitation (GPM V7A), soil moisture (ESA CCI, SMAP), leaf area index (MODIS, VIIRS), Snow depth (AMSR-E, AMSR2), terrestrial water storage (GRACE and GRACE-FO), and surface water (Surface Water Ocean Topography), globally at 5km resolution.

Allows a monitoring environment for the assessment of hydrological extremes (droughts, floods); Designed to support global water resources and agricultural applications.



High resolution North American land analysis taking shape

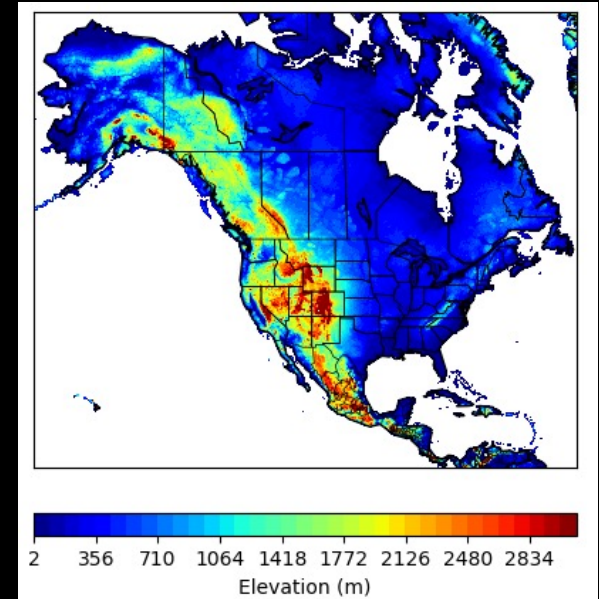
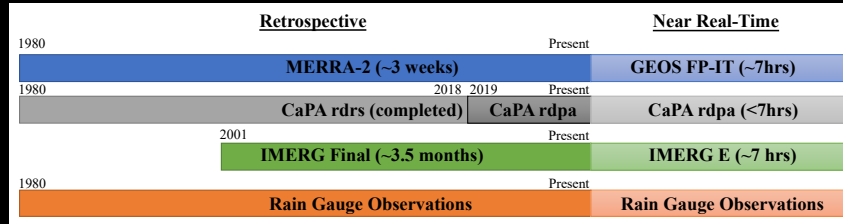


North American Land Data Assimilation System Phase 3 (NLDAS-3)

A 1km scale North American land analysis to support drought monitoring, water resources management, agricultural applications

Update:

NLDAS-3 uses advanced data assimilation techniques to blend well known and meteorological datasets (MERRA-2, IMERG, CaPA from ECCO)



NLDAS-3

The modeling system is being configured to assimilate all hydrology relevant remote sensing inputs (GPM, SMAP, GRACE, MODIS, VIIRS, SWOT, ...)

Will routinely run at NASA SPoRT and provide assessments of hydrological extremes (droughts, floods)

Will include water quality quantifications in addition to water availability assessments



EIS Engagement and Outreach Activities

Organization/ Meeting	Date(s)/Location	Thematic Area	Activity/ Outcome
FEMA tech talk	Feb 6, 2024	Water, Fire	The EIS and the NASA disasters teams discussed the possible use of EIS synthesis to support FEMA needs

