NASA-SSH: A Suite of New Sea Level Products from NASA

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Summary

Built on the multi-mission altimetry product produced by Beckley et al. at Goddard Space Flight Center (GSFC), **NASA-SSH** provides a series of user-friendly sea level products suitable for scientific and public use. Combining data from TOPEX/Poseidon, the Jason-series missions and Sentinel-6, the GSFC product carefully levels all satellites to a common reference time period and ensures consistent processing across all missions.

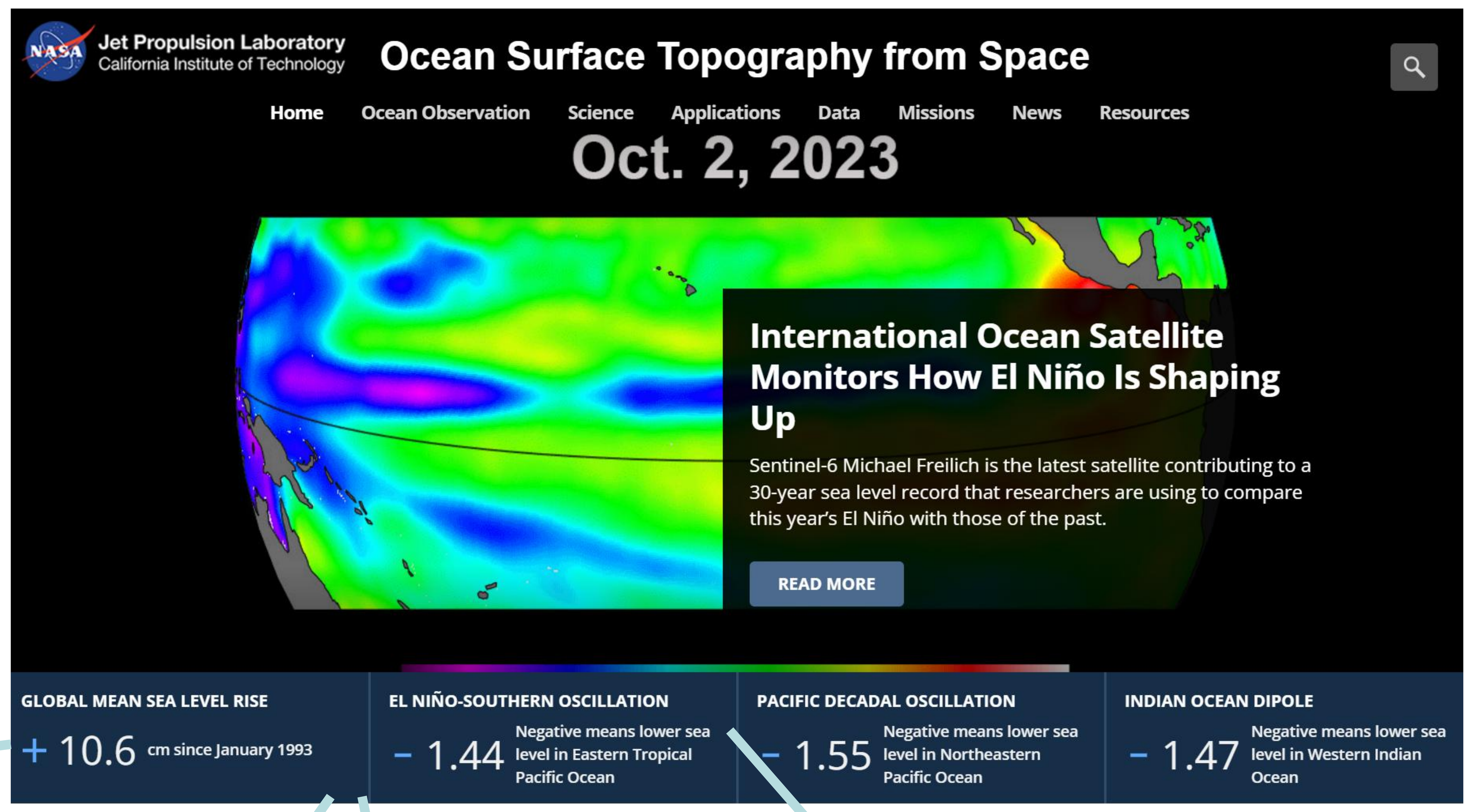
The **NASA-SSH** products provide additional quality control, flagging outliers, removing bad passes and using crossovers to reduce long-wavelength (primarily orbit) errors, and smoothing along track slightly to reduce altimeter noise.

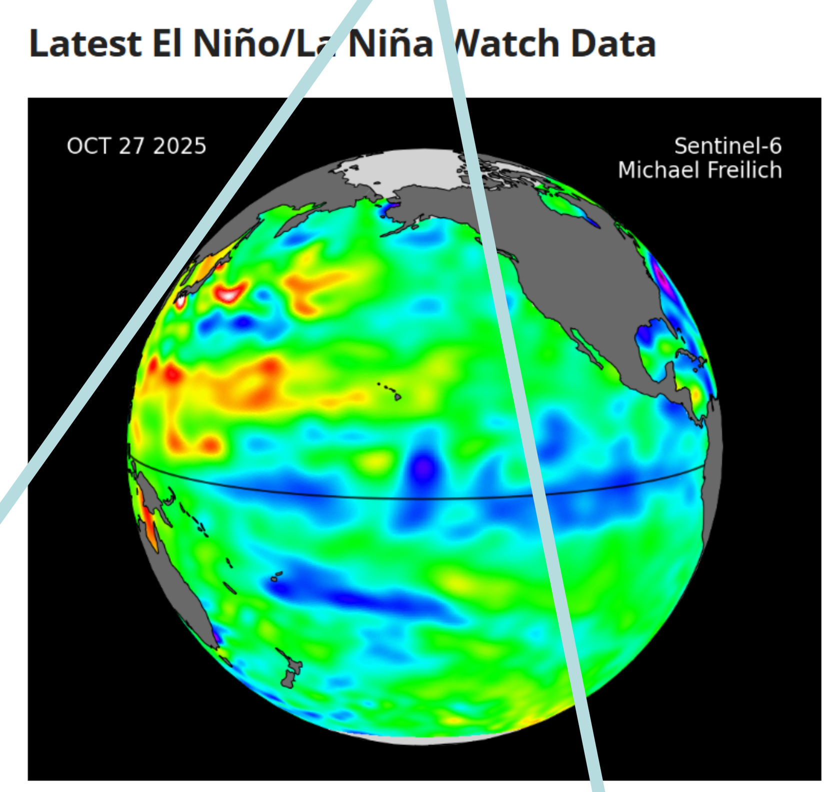
NASA-SSH provides user-friendly, daily netcdf files, as well as course resolution (0.5 degree) gridded maps on a weekly basis, and indicators which track global mean sea level change, El Nino and other climate phenomena.

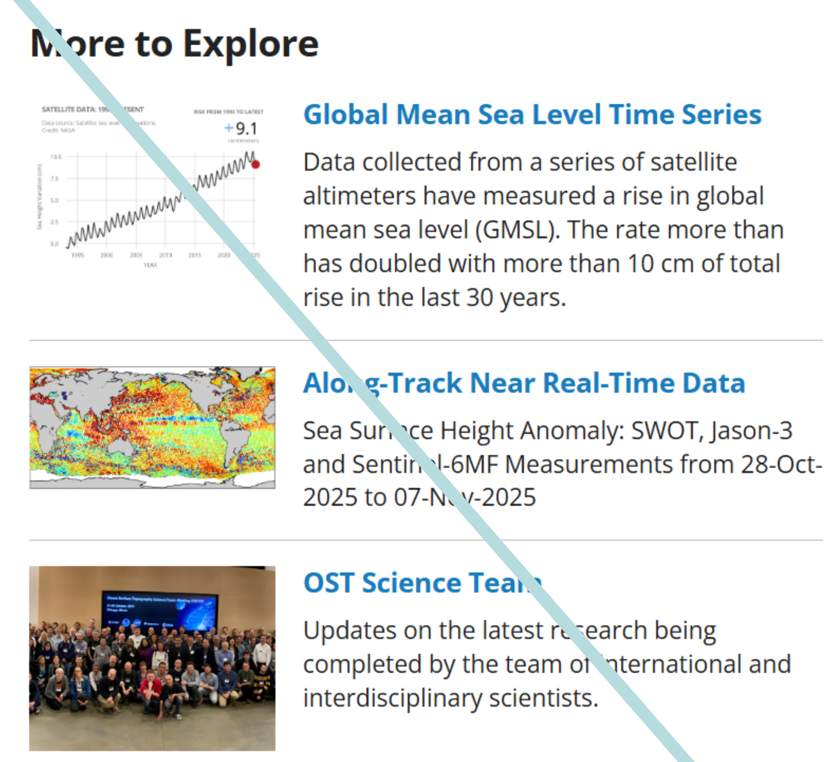
A new version of the **NASA-SSH** products (v1.1) will be released soon, based on a GSFC product that uses the highest quality orbits (including JPL GPS orbits) whenever available. Future evolutions will include data from high-latitude missions and more sophisticated gridding techniques to produce high-resolution grids.

NASA-SSH data is available at https://podaac.jpl.nasa.gov/NASA-SSH

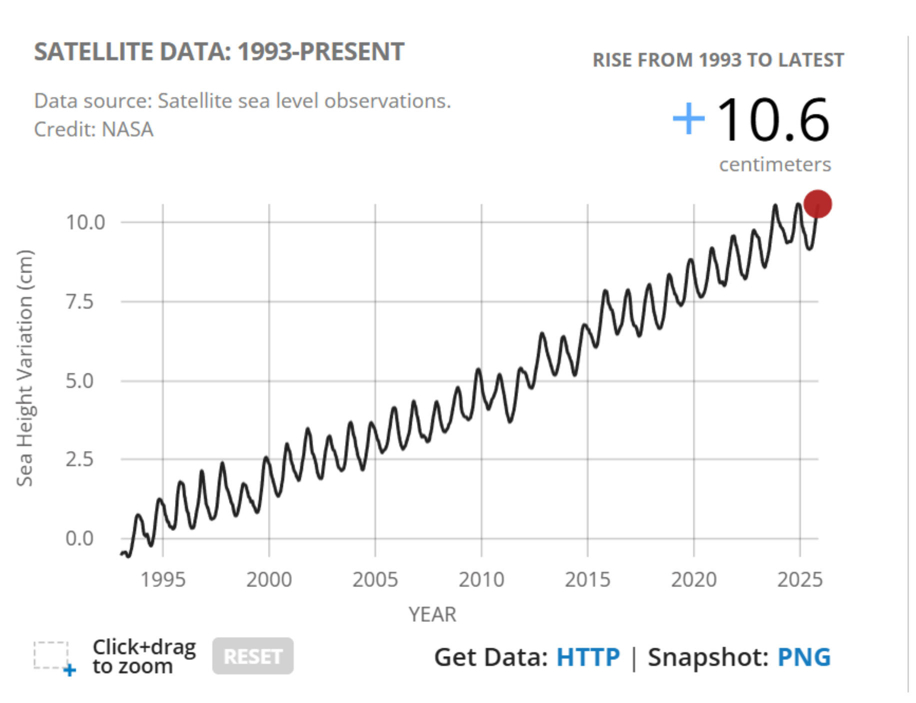
https://sealevel.jpl.nasa.gov with interactive indicators



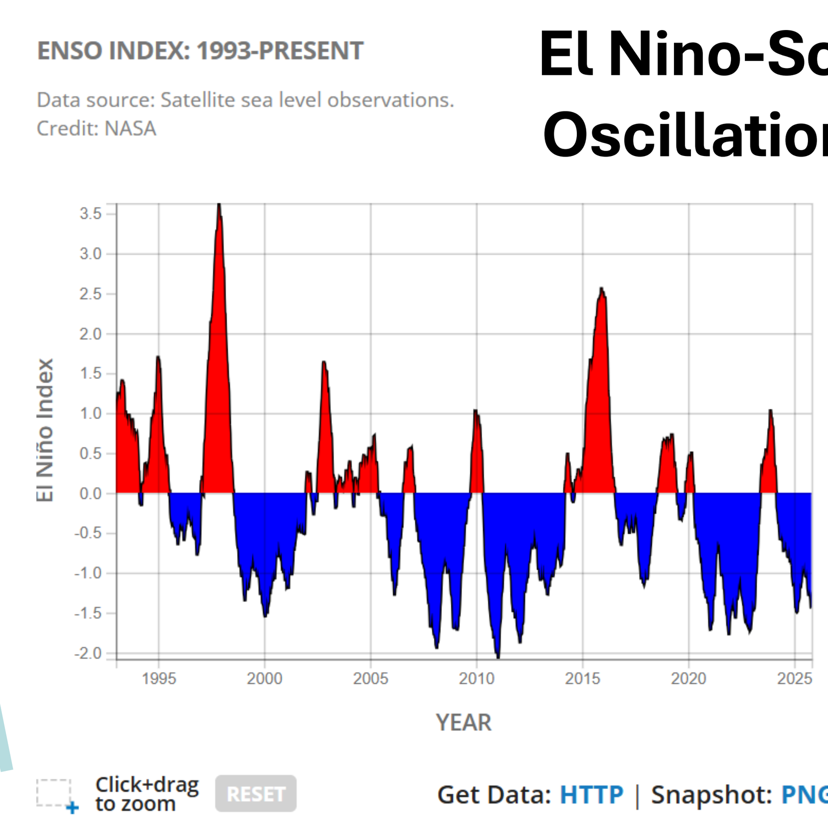




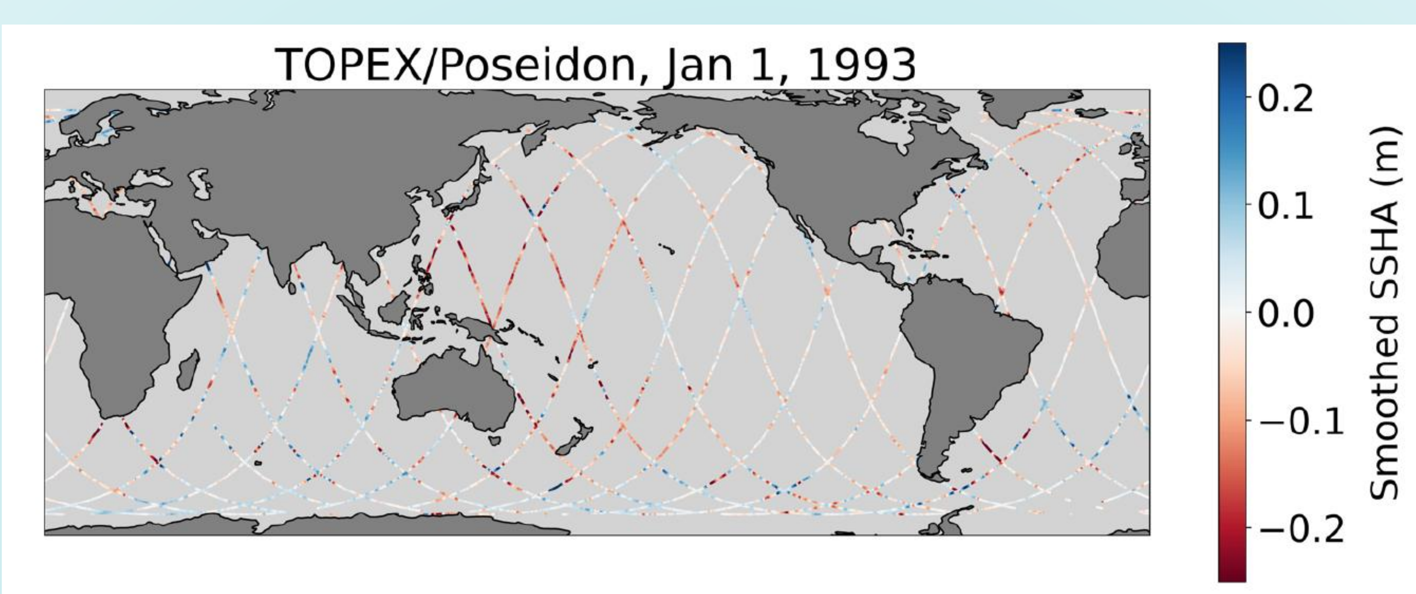
Global Mean Sea Level Rise



El Nino-Southern Oscillation Index



Example of a **NASA-SSH** Along-Track Daily File



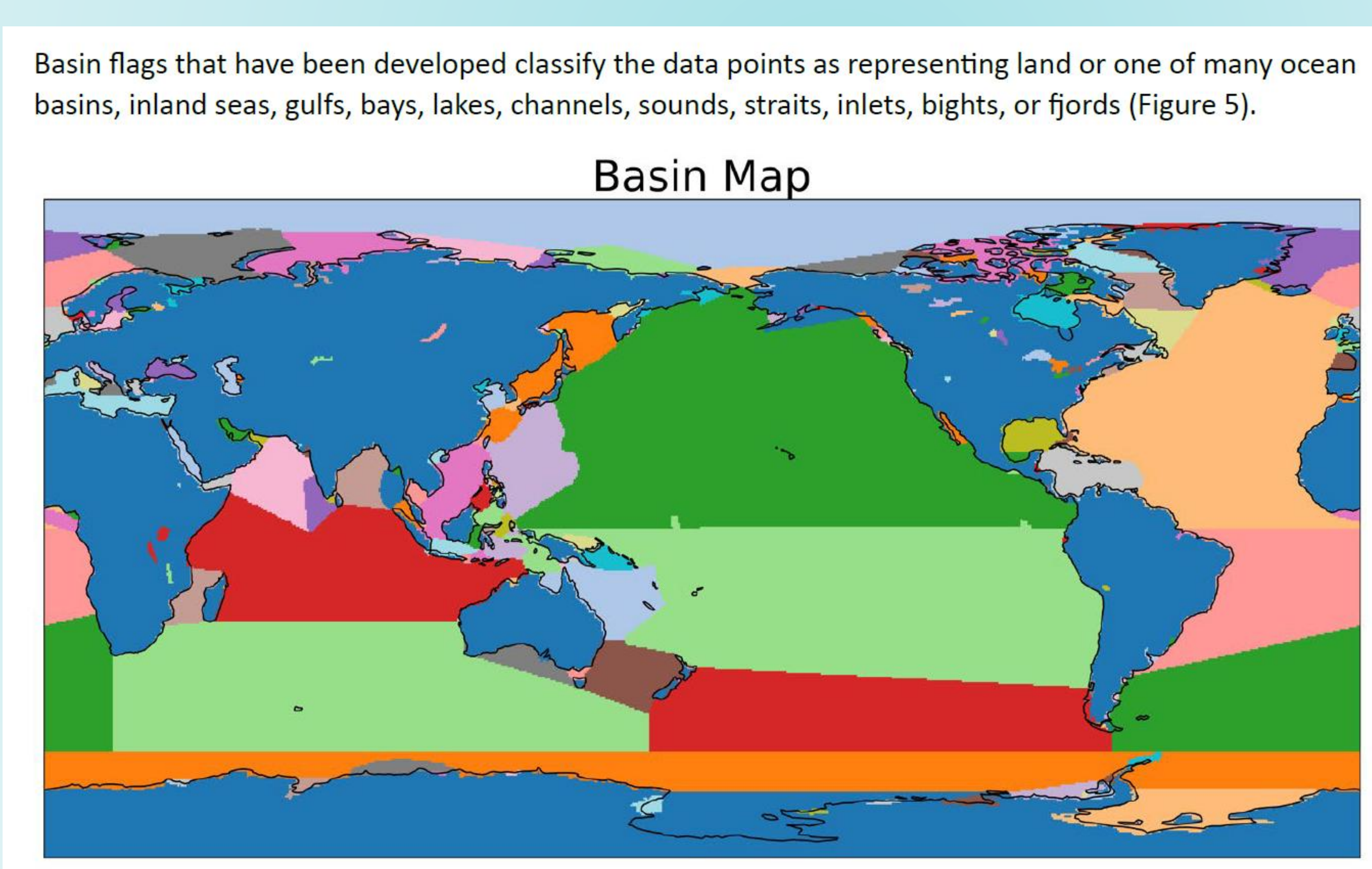
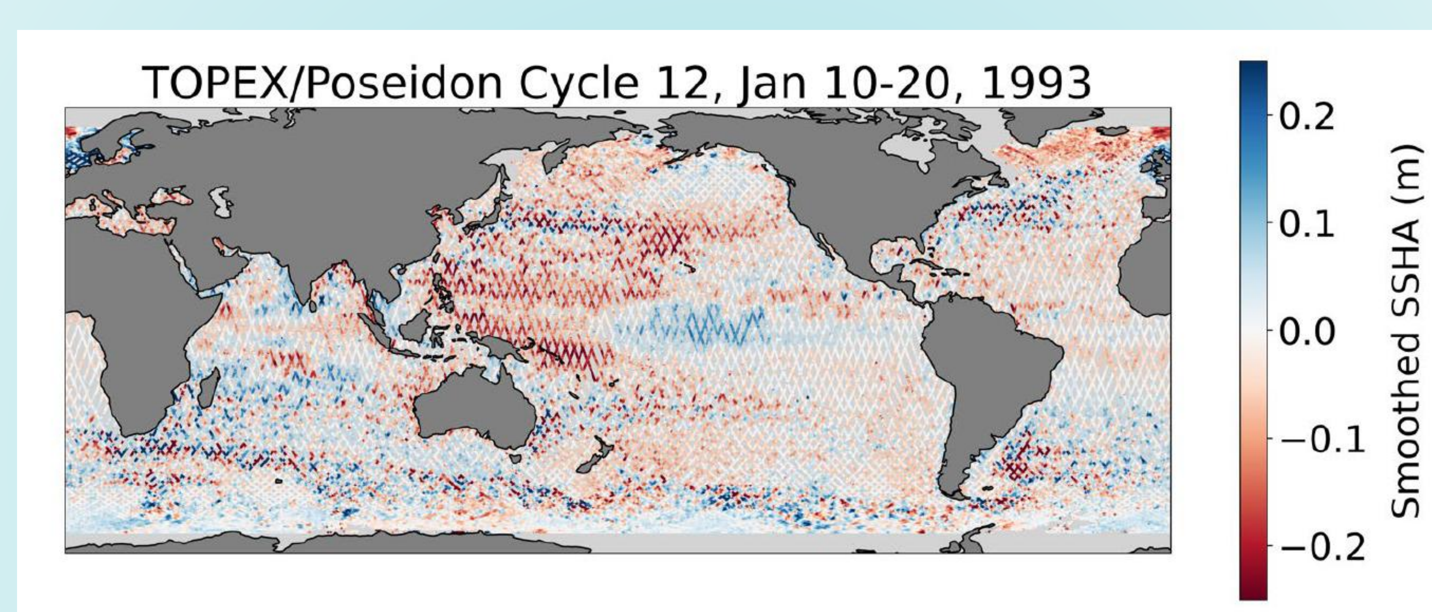


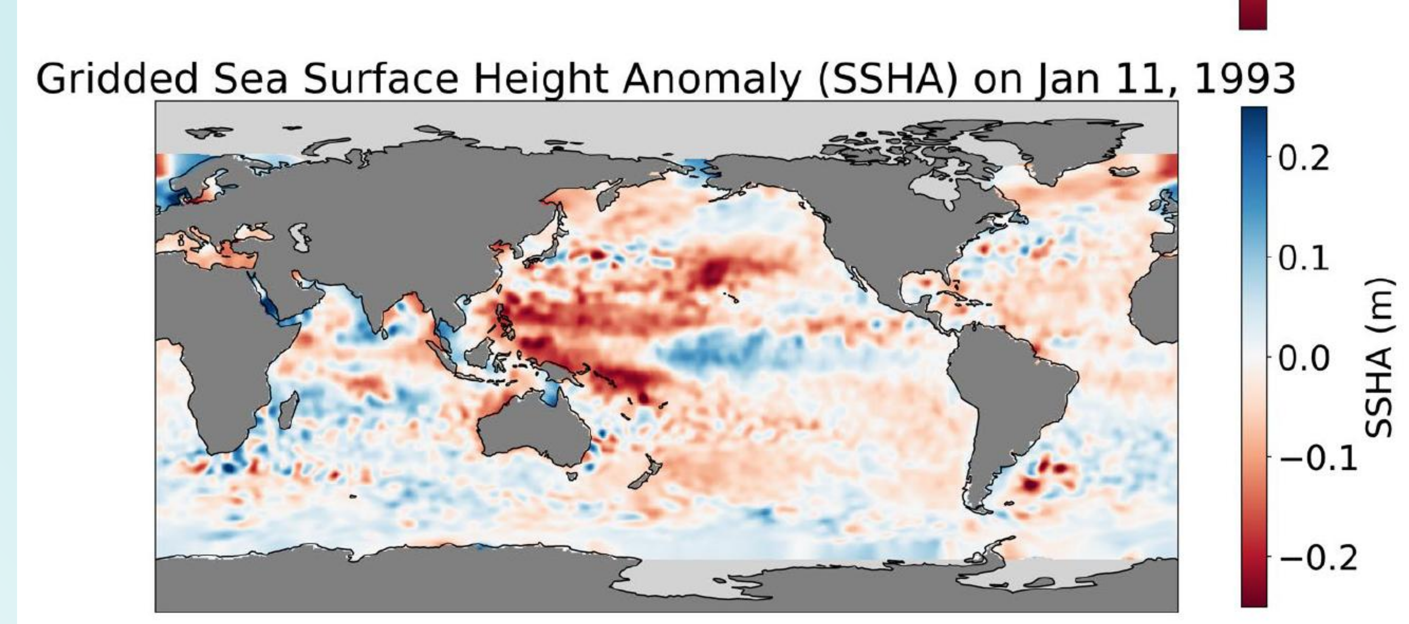
Figure 5: Map of the different basins, color coded.

Every **NASA-SSH** data point has a corresponding basin number, making it easy to select & group data geographically

All **NASA-SSH** data products are updated weekly, using Sentinel-6 data directly from PODAAC!

10 days worth of **NASA-SSH** Along-Track data, along with the corresponding "simple" grid, computed using a gaussian weighted average, but respecting basin boundaries





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