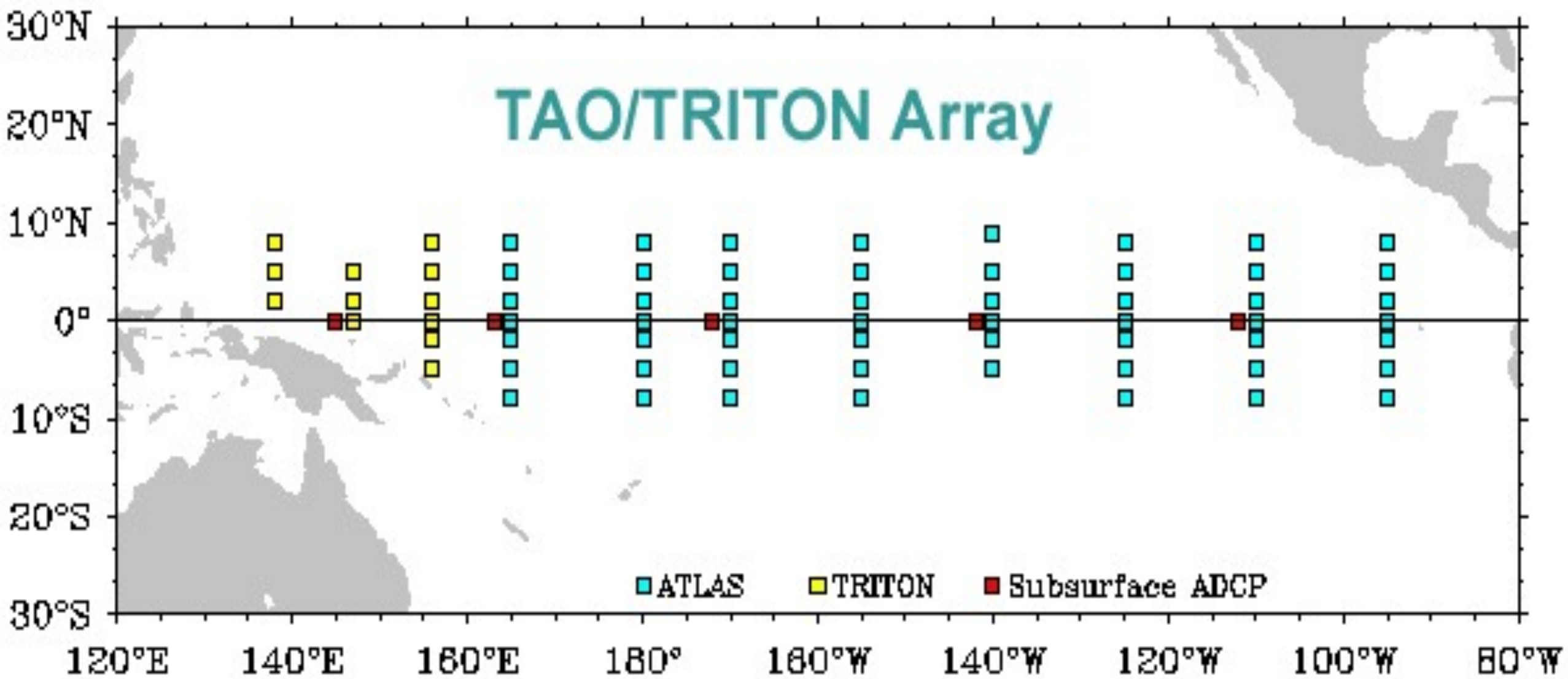


The NOAA Climate and Global Change Program 1985 – 2005

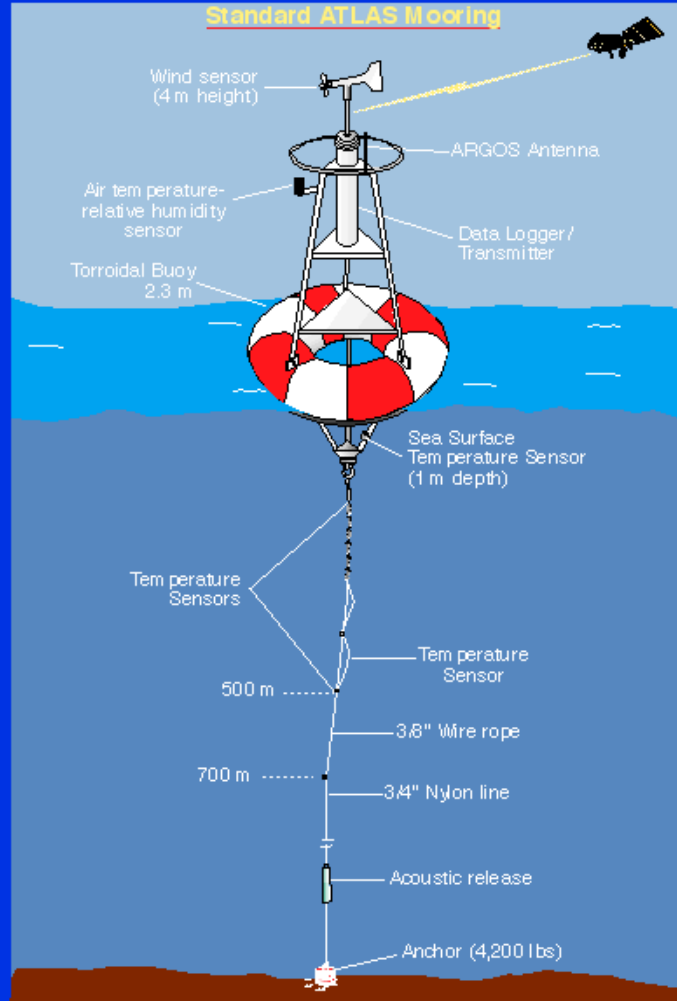
Kenneth Mooney, Jin Huang
NOAA Climate Program Office

The NOAA Climate & Global Program has its origins in the Tropical Ocean Global Atmosphere (TOGA) Program. In 1985 NOAA establish a line of funding to support the TOGA Program and was selected to host the interagency TOGA Project Office. NOAA's funding was mainly directed at establishing the observing system required by TOGA. In 1990, NOAA identified a line of funding for the Climate & Global Change Program and established the Office of Global Programs (OGP) to manage the program. The presentation will highlight a number of the major scientific successes of the C&GC Program focusing on elements of the climate observing system first established by the C&GC Program. Today the NOAA Climate Program Office (CPO) continues the tradition of the C&GC Program in support of NOAA's mission.

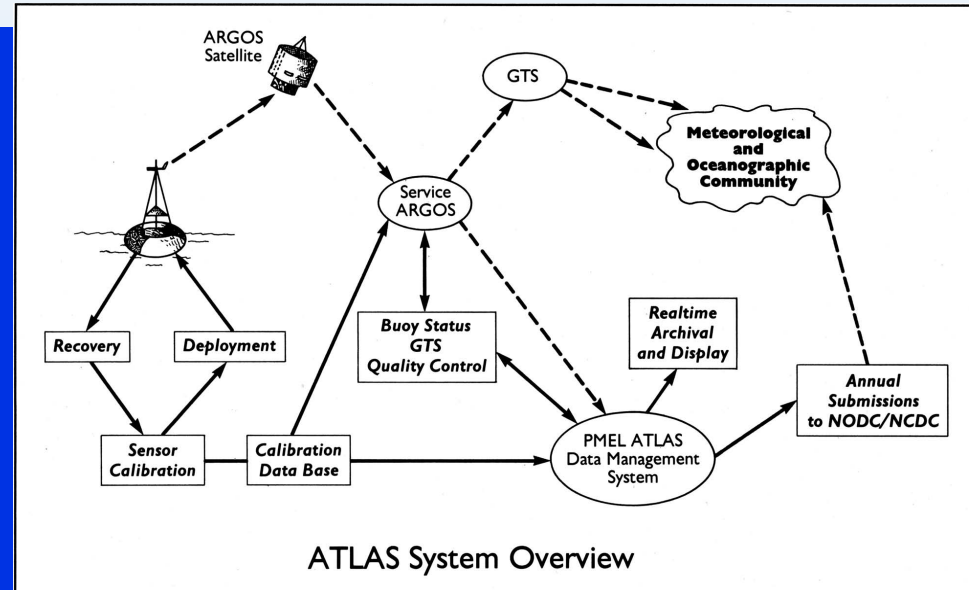
Tropical Atmosphere Ocean Array



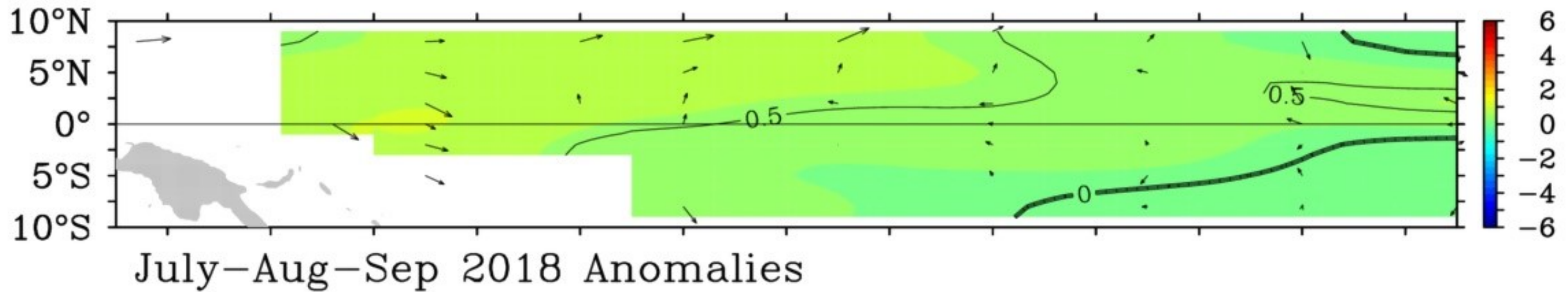
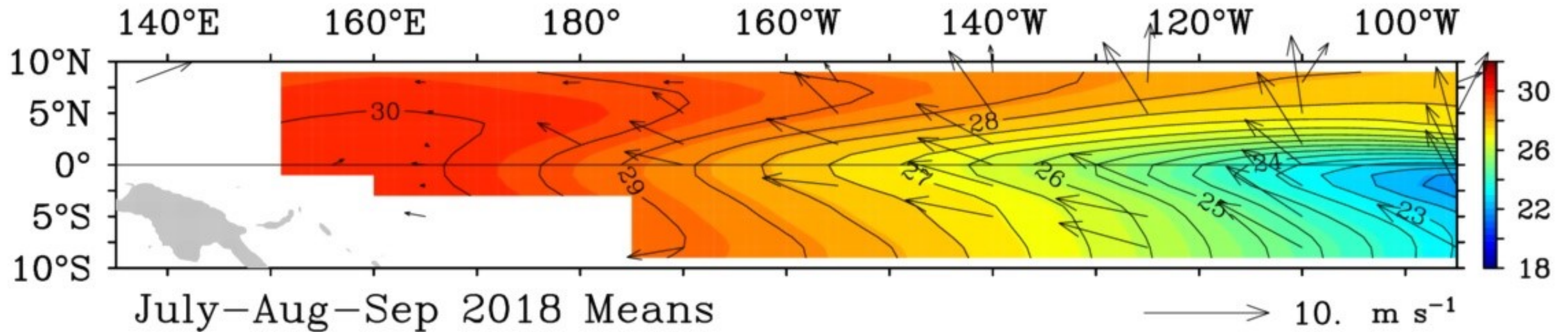
ATLAS Mooring System



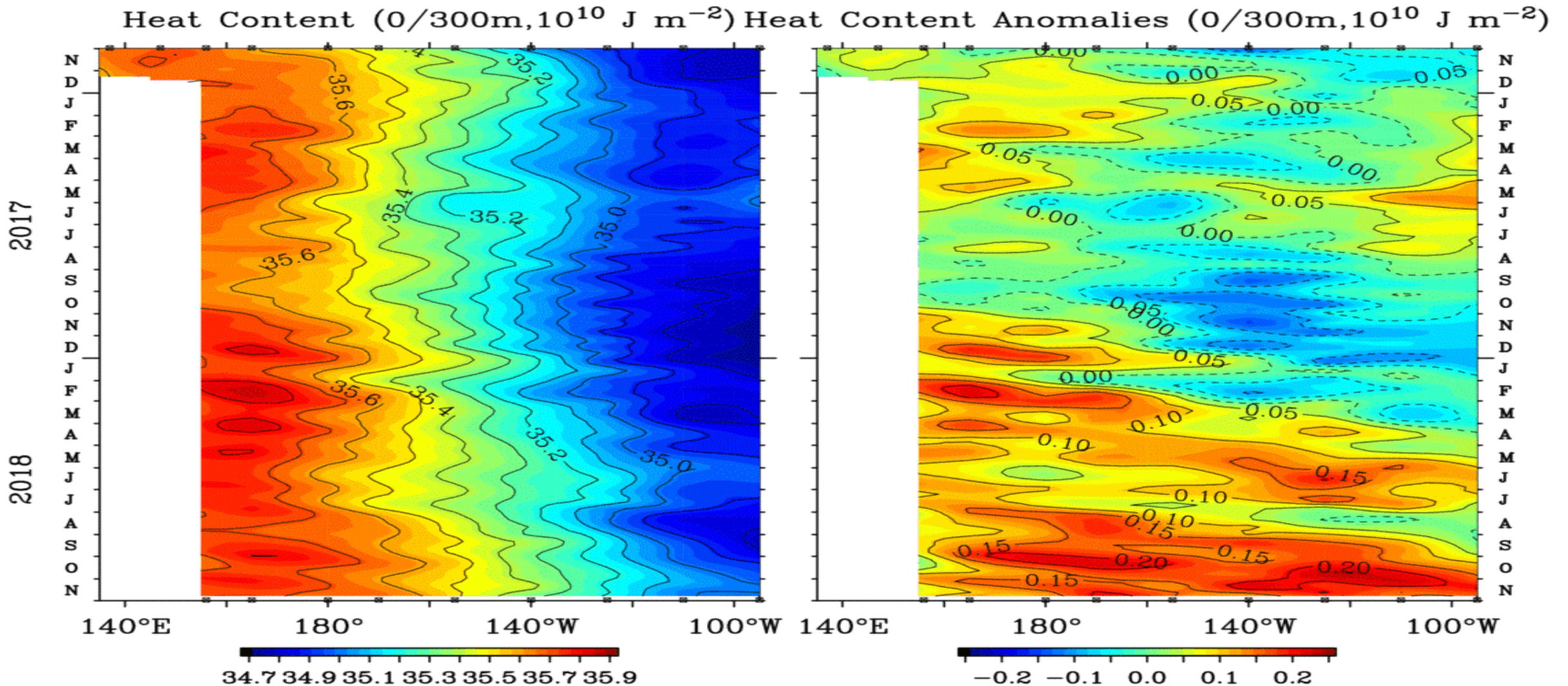
6.00



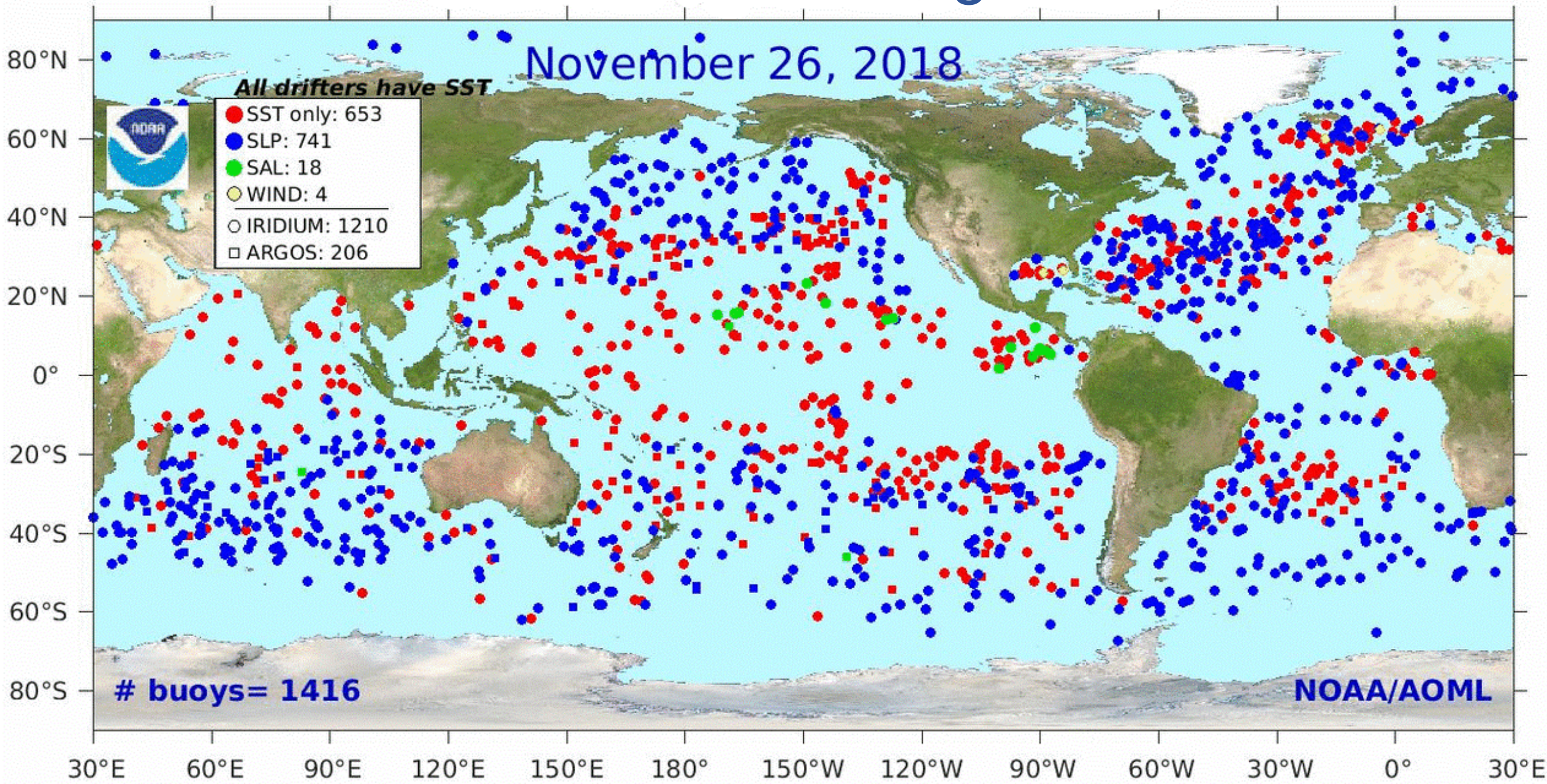
Quarterly Mean SST ($^{\circ}\text{C}$) and Winds (ms^{-1})



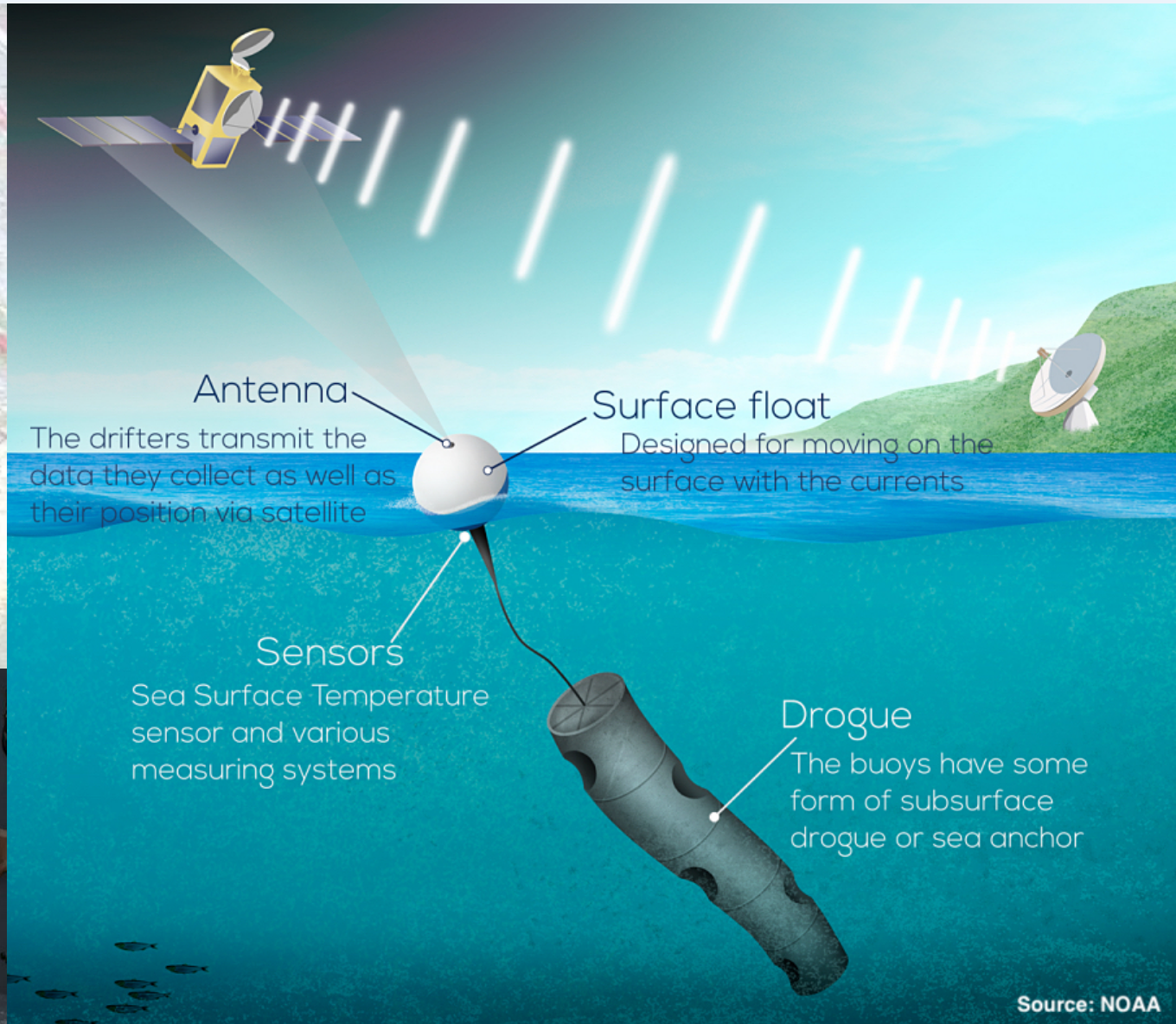
Five Day Mean Heat Content 2°S to 2°N Average



Global Drifter Program

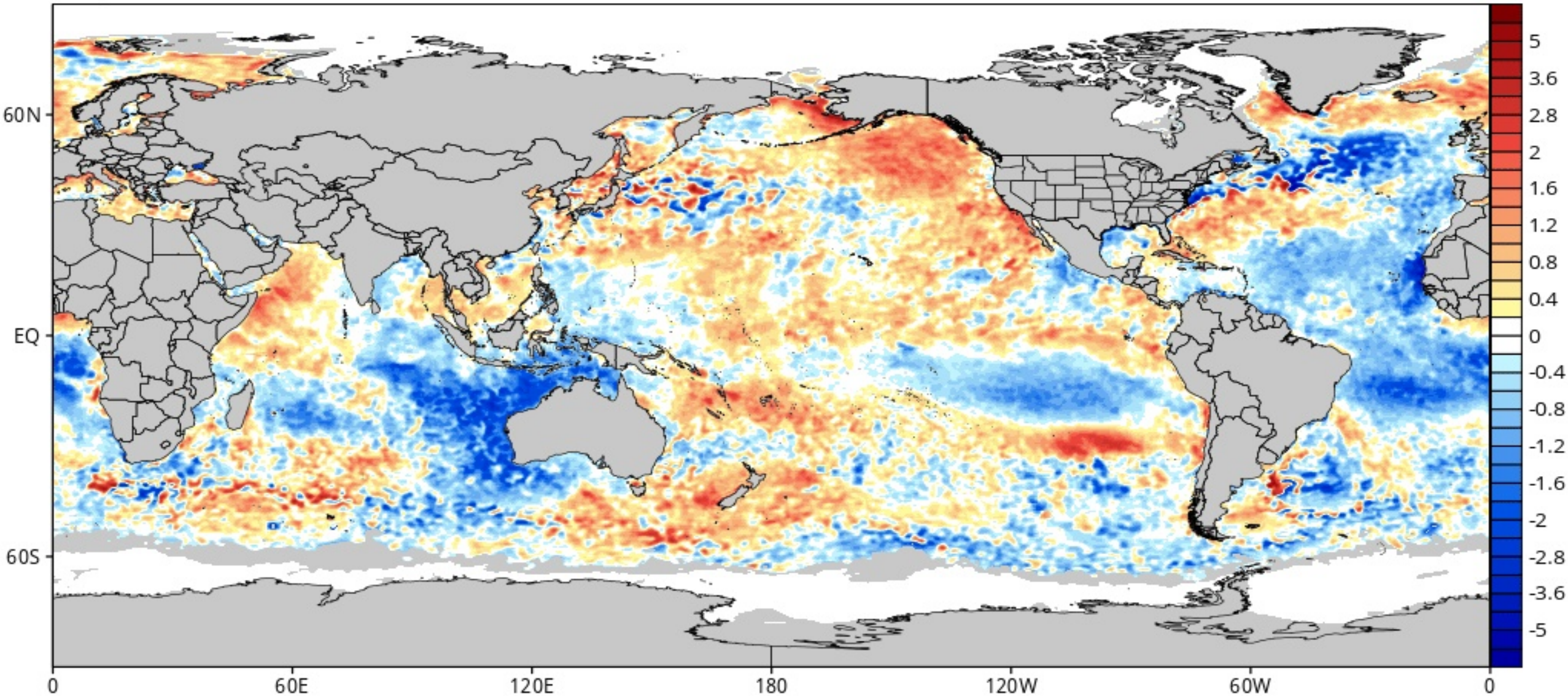


Global Drifter System

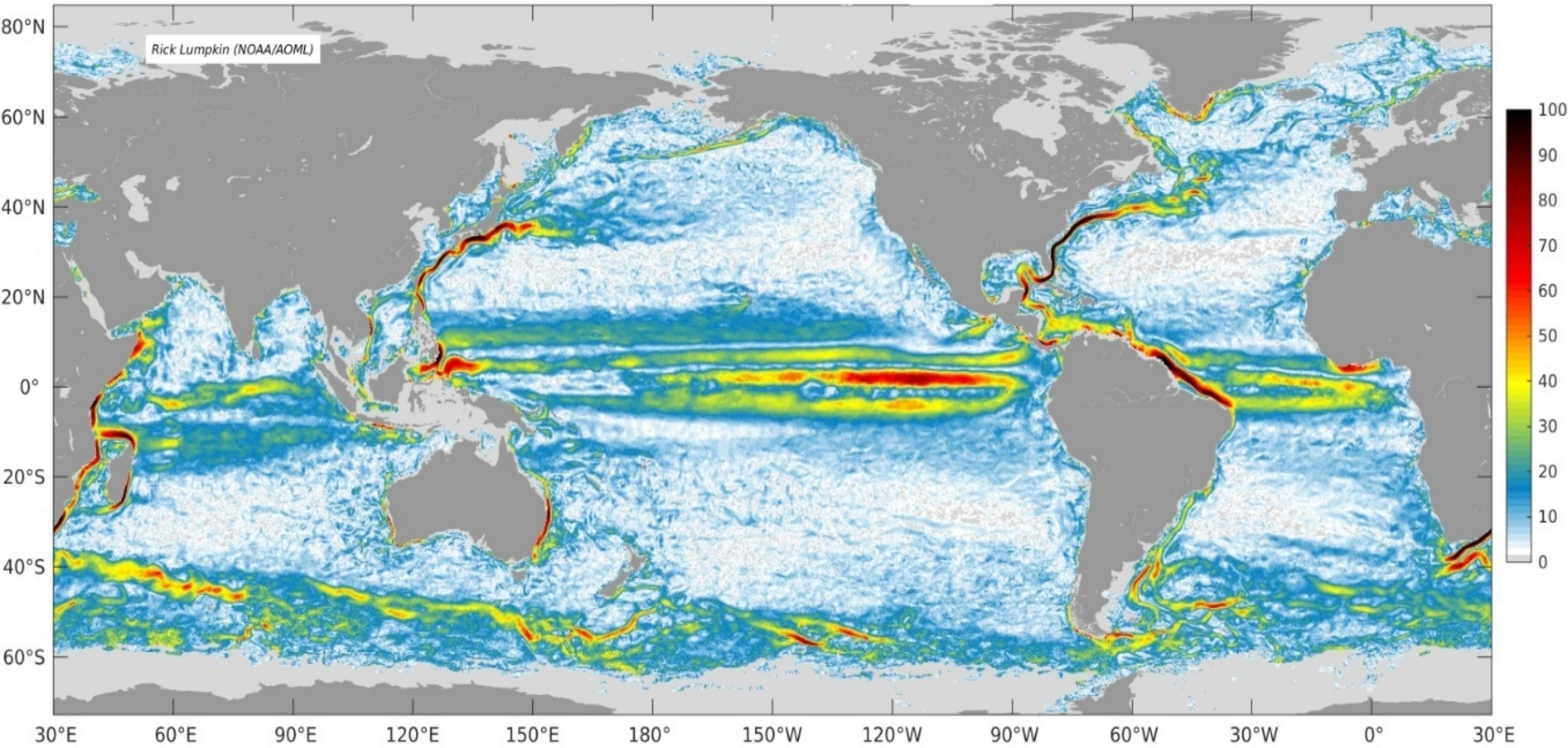


Sea Surface Temperature Anomaly

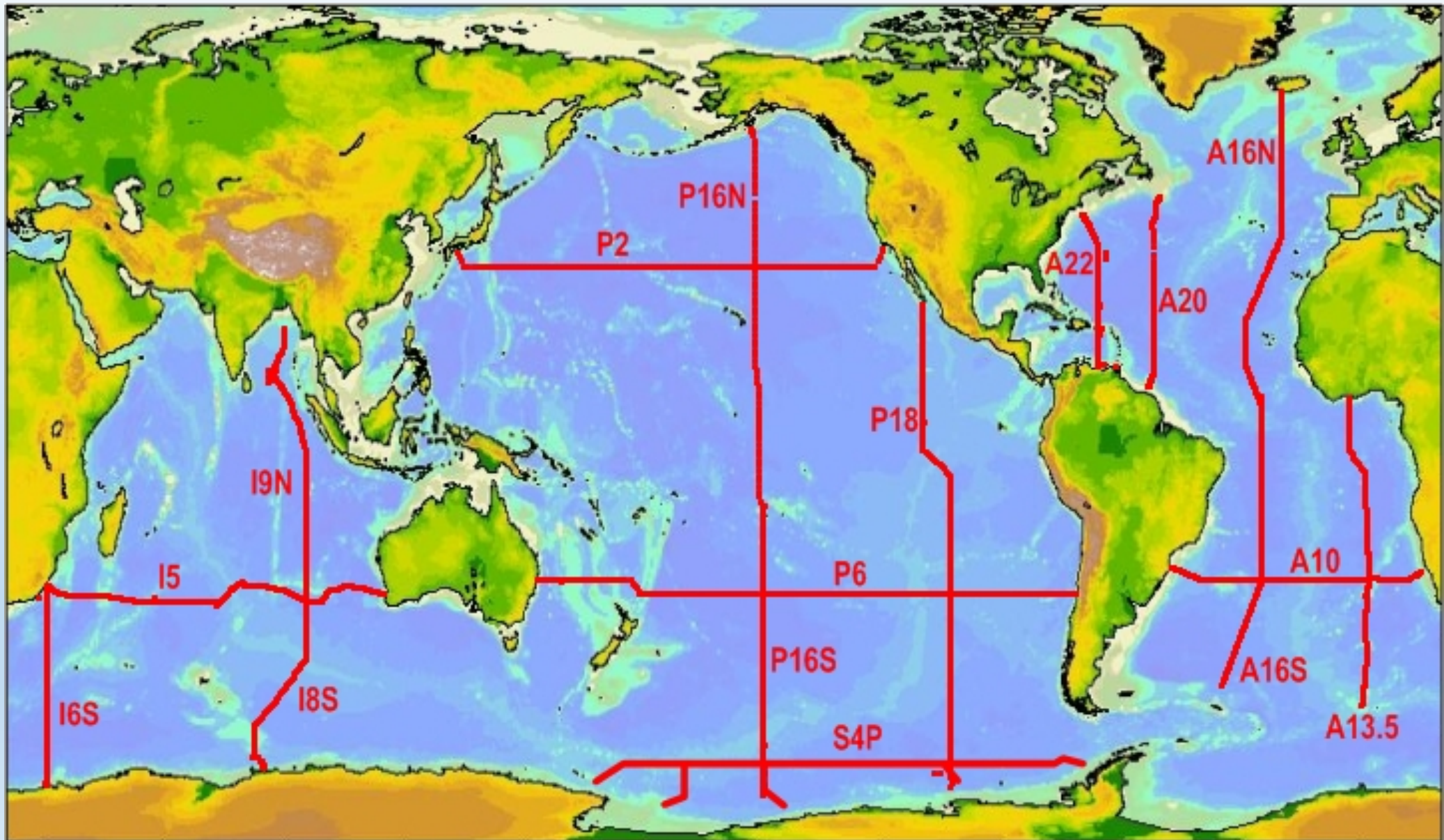
Analysis Time: 06z Nov 29 2018



Annual Mean Drifter Speed (cm/s)



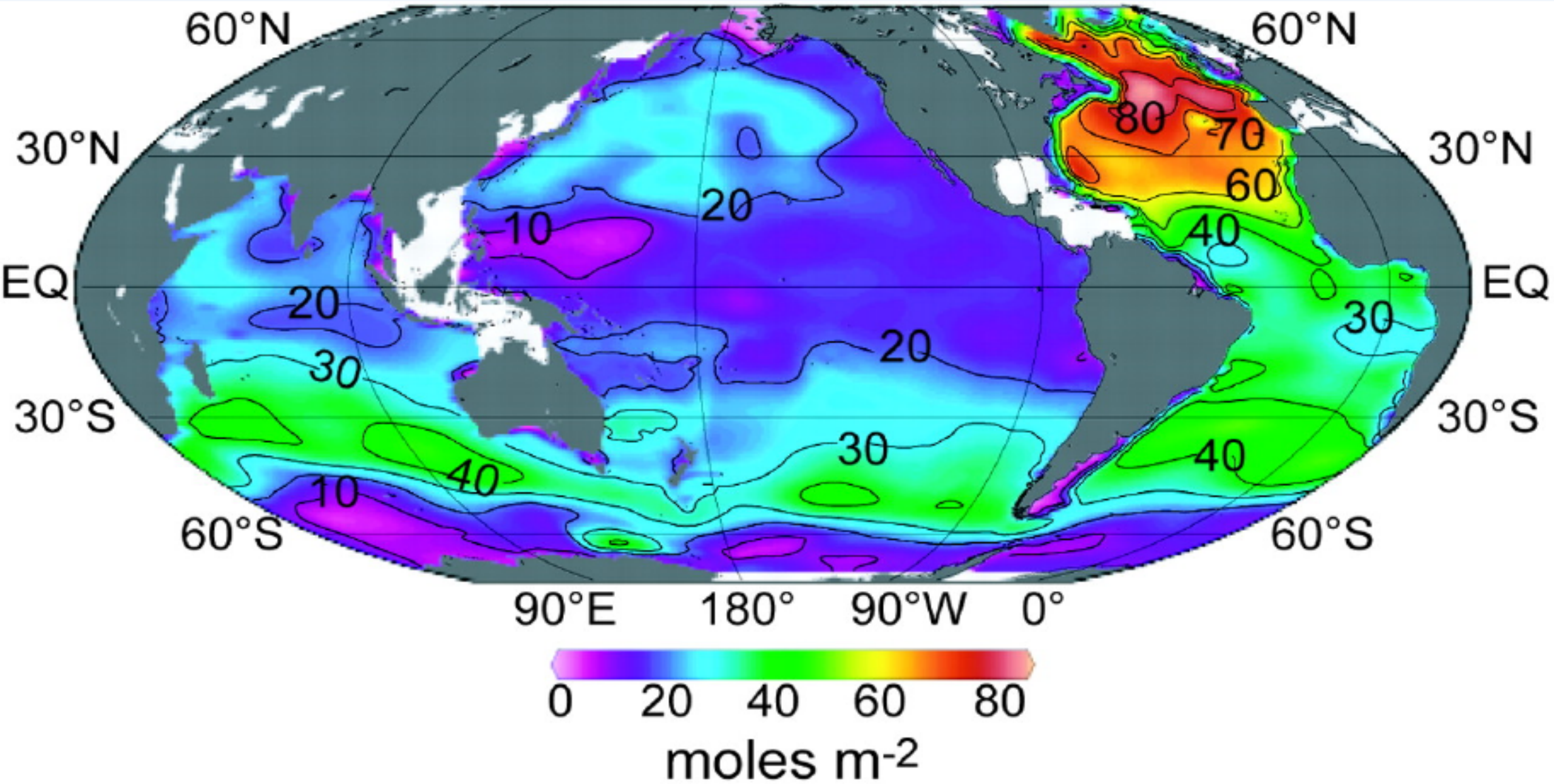
Repeat Hydrography Program



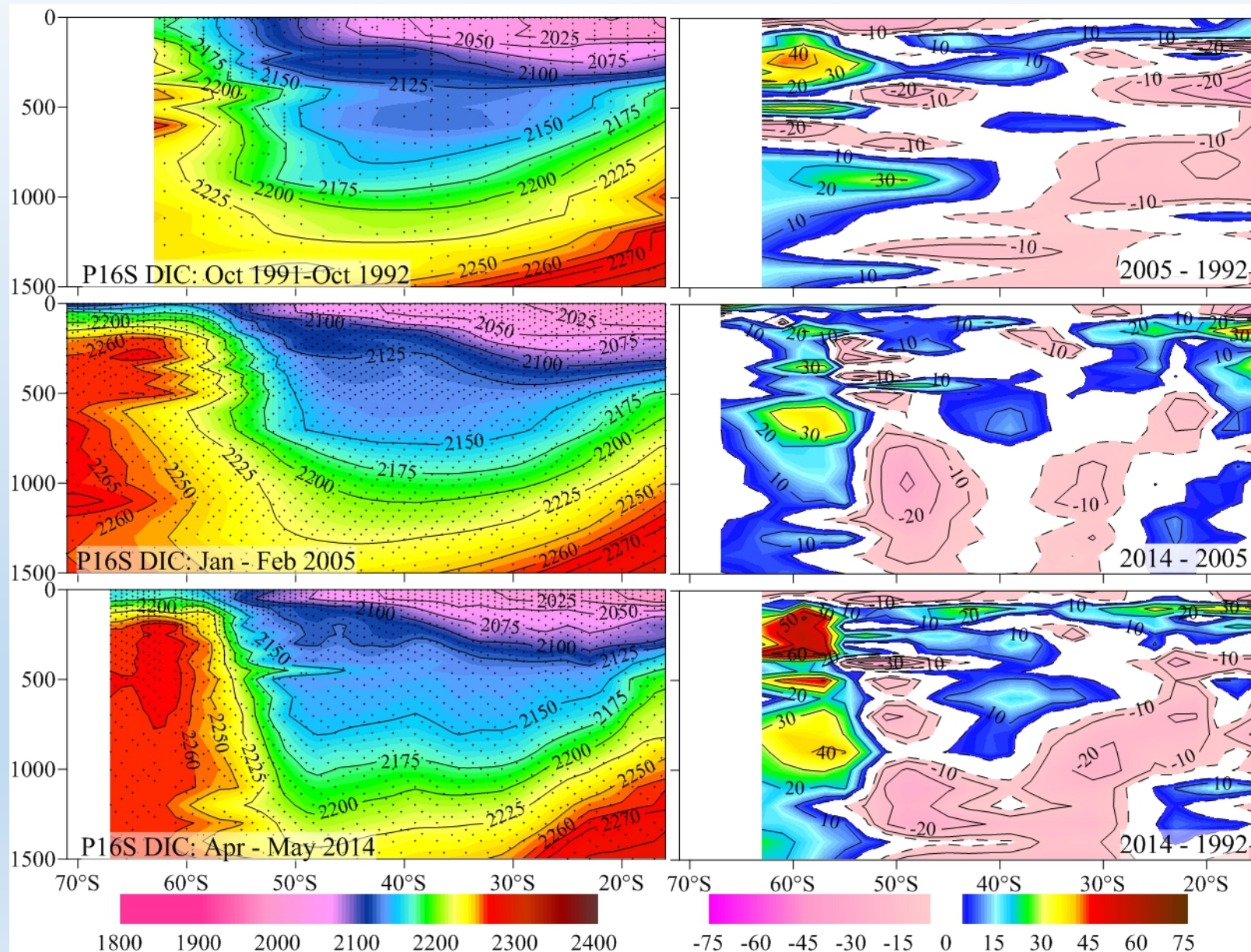
Deep Ocean Hydrocast



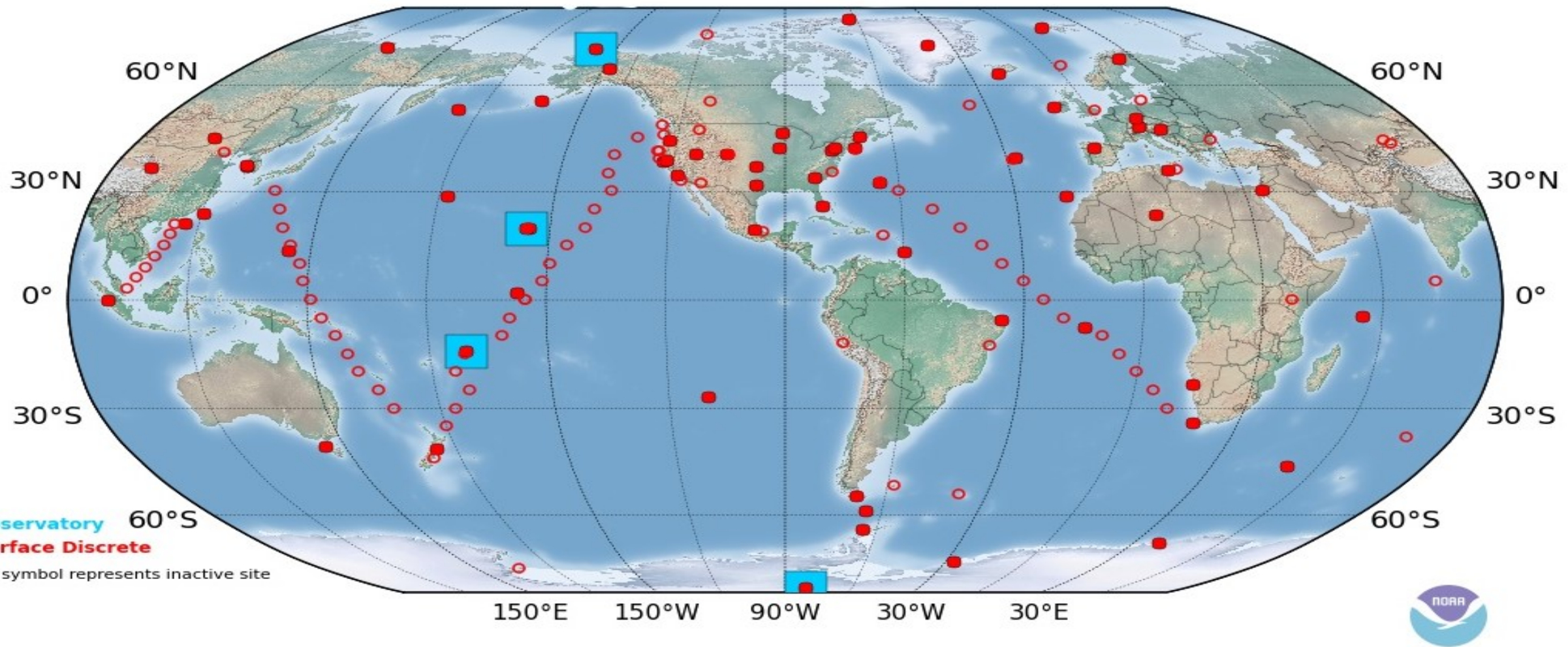
Global Ocean CO₂ Inventory



Decadal Change in Dissolved Inorganic Carbon

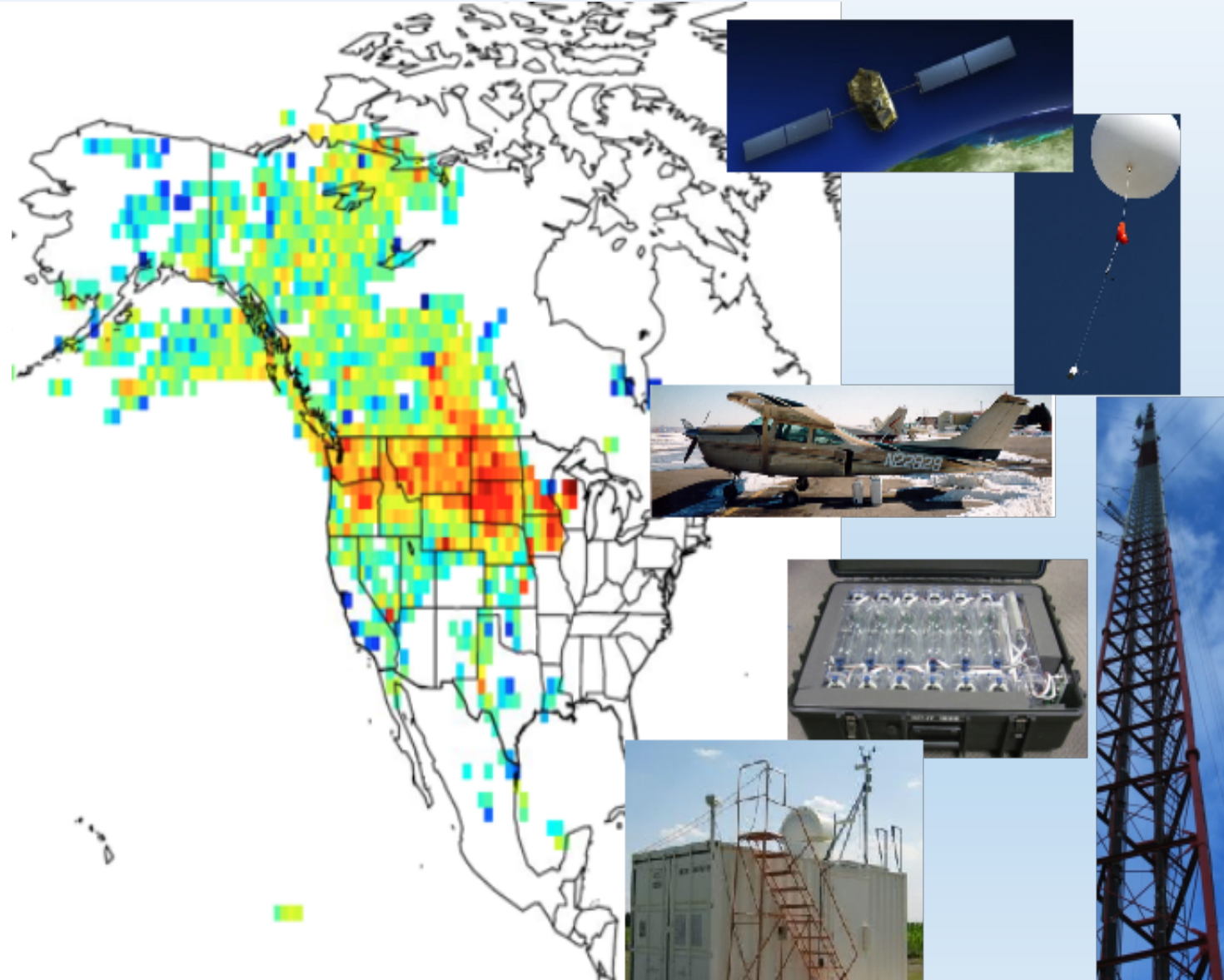
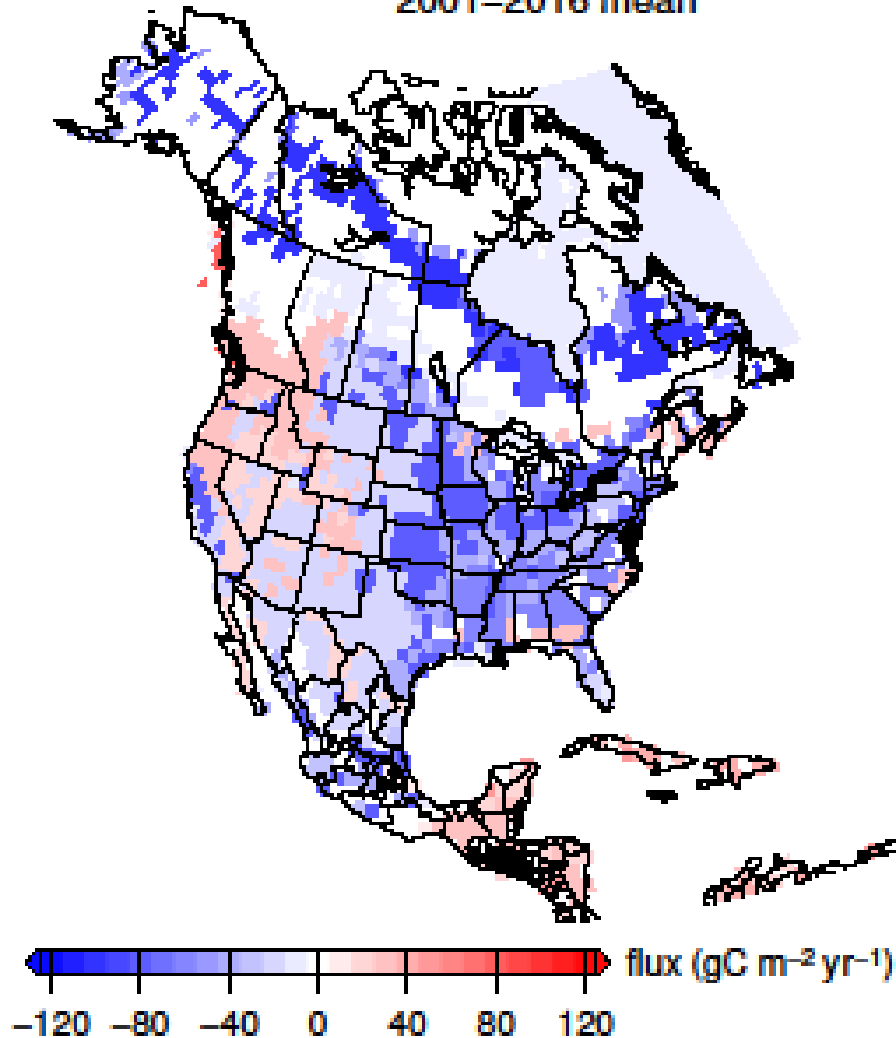


Global Greenhouse Gas Reference Network

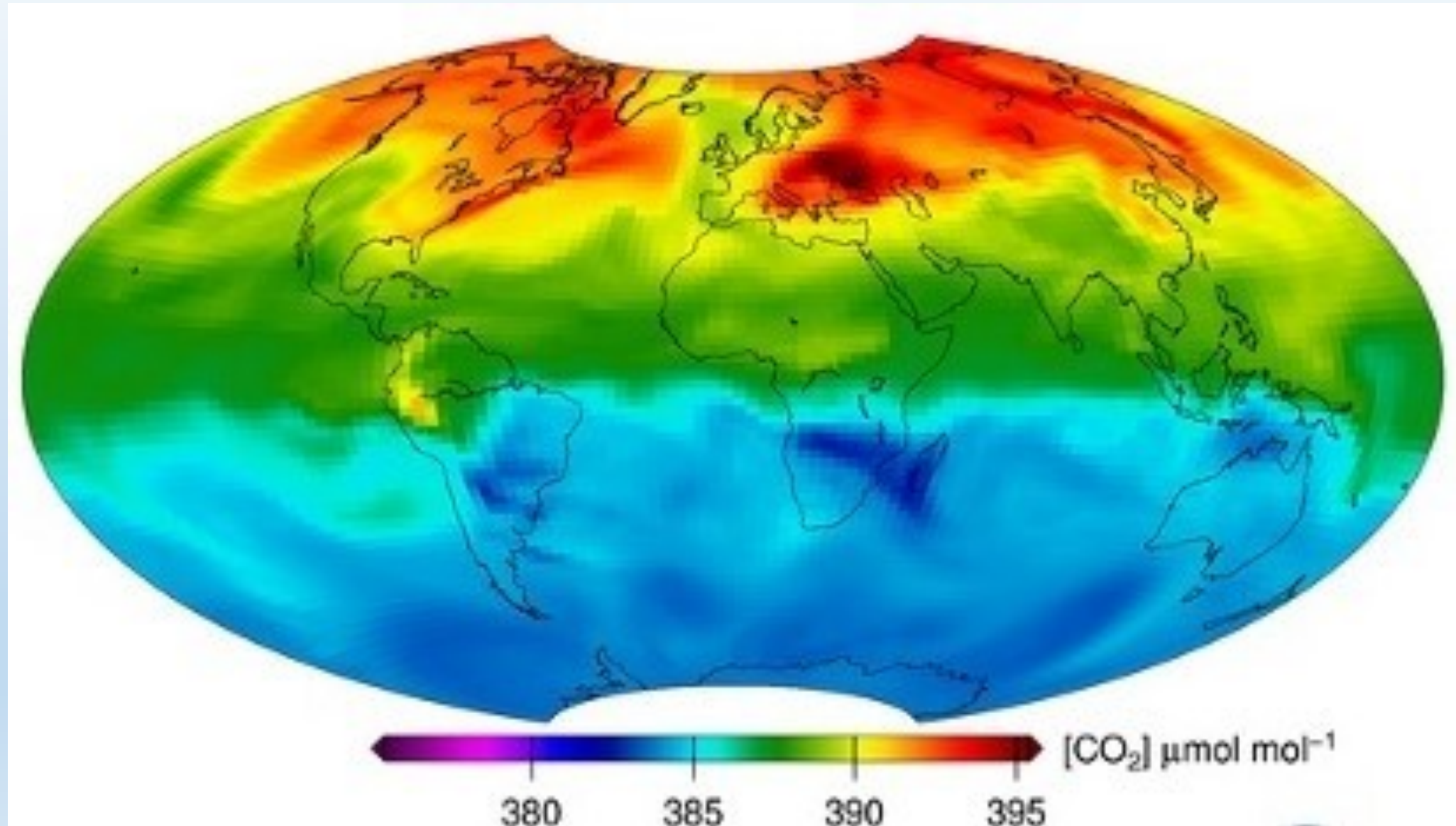


Carbon Flux Monitoring System

ecoregion fluxes
2001–2016 mean



Free Troposphere CO₂ 2009-MAR-20

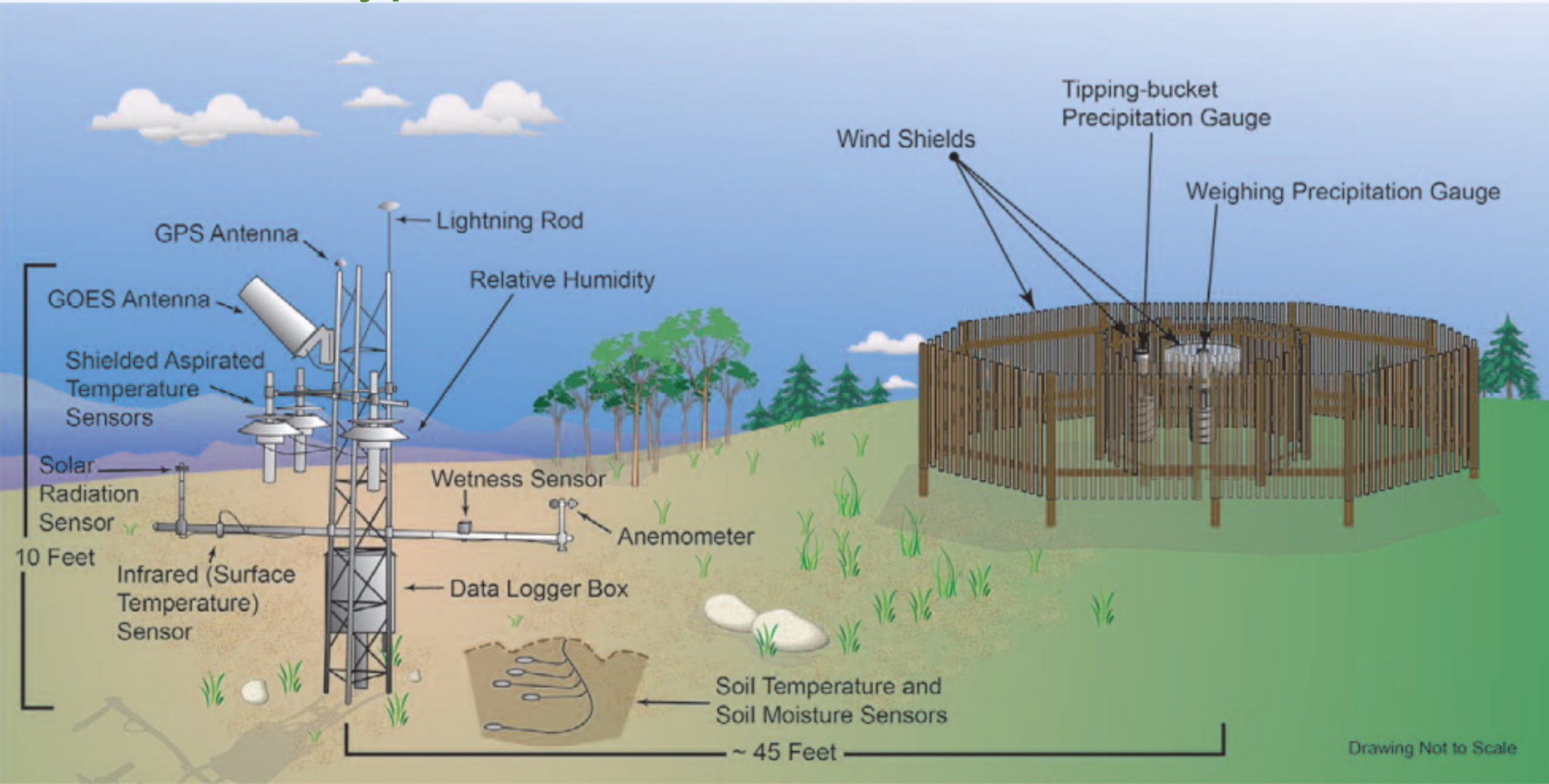


U.S. Climate Reference Network

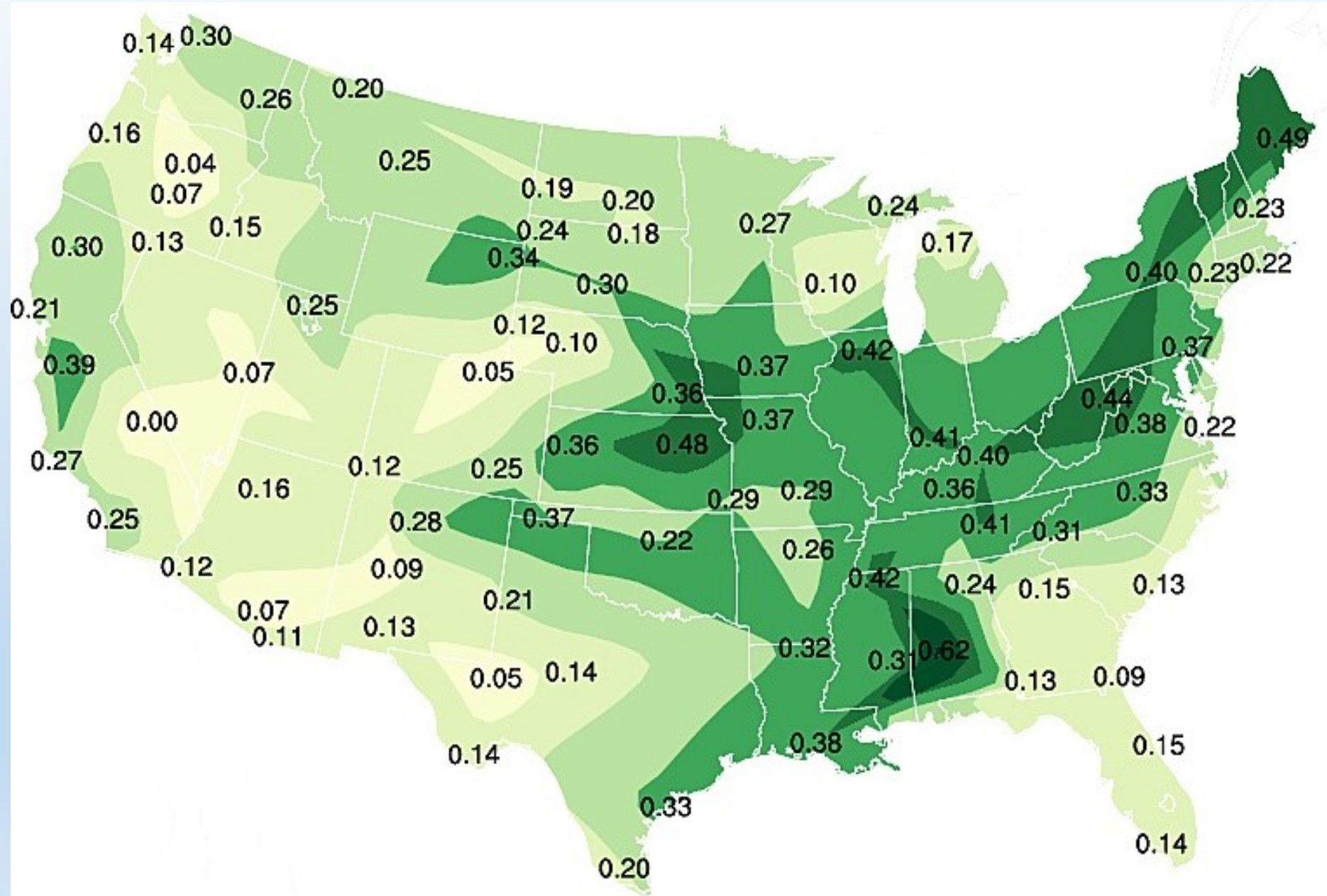


- * Utqiaġvik was formerly named Barrow

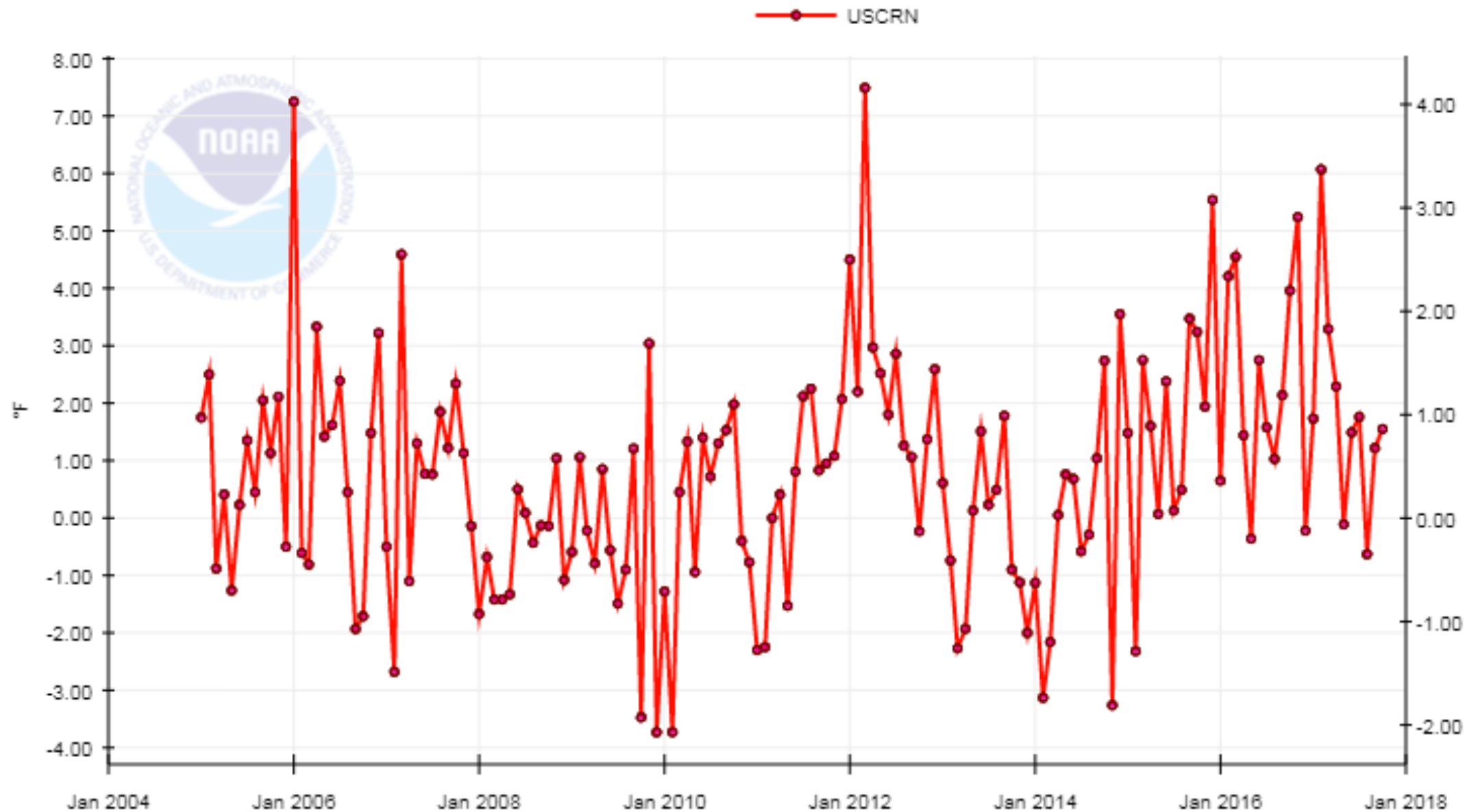
Typical USCRN Instrumentation



10cm Observed Soil Moisture

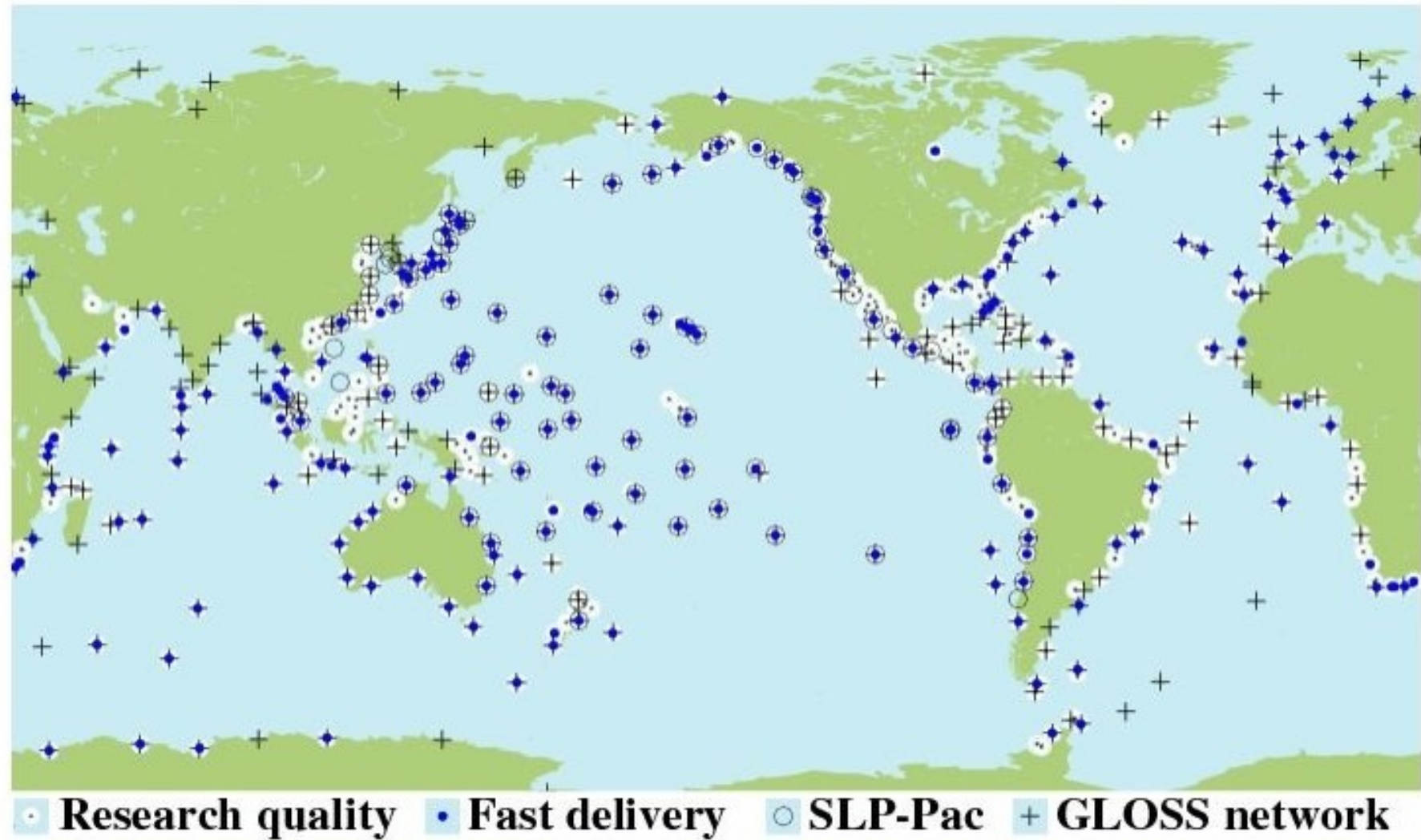


Contiguous U.S. Average Temperature Anomaly

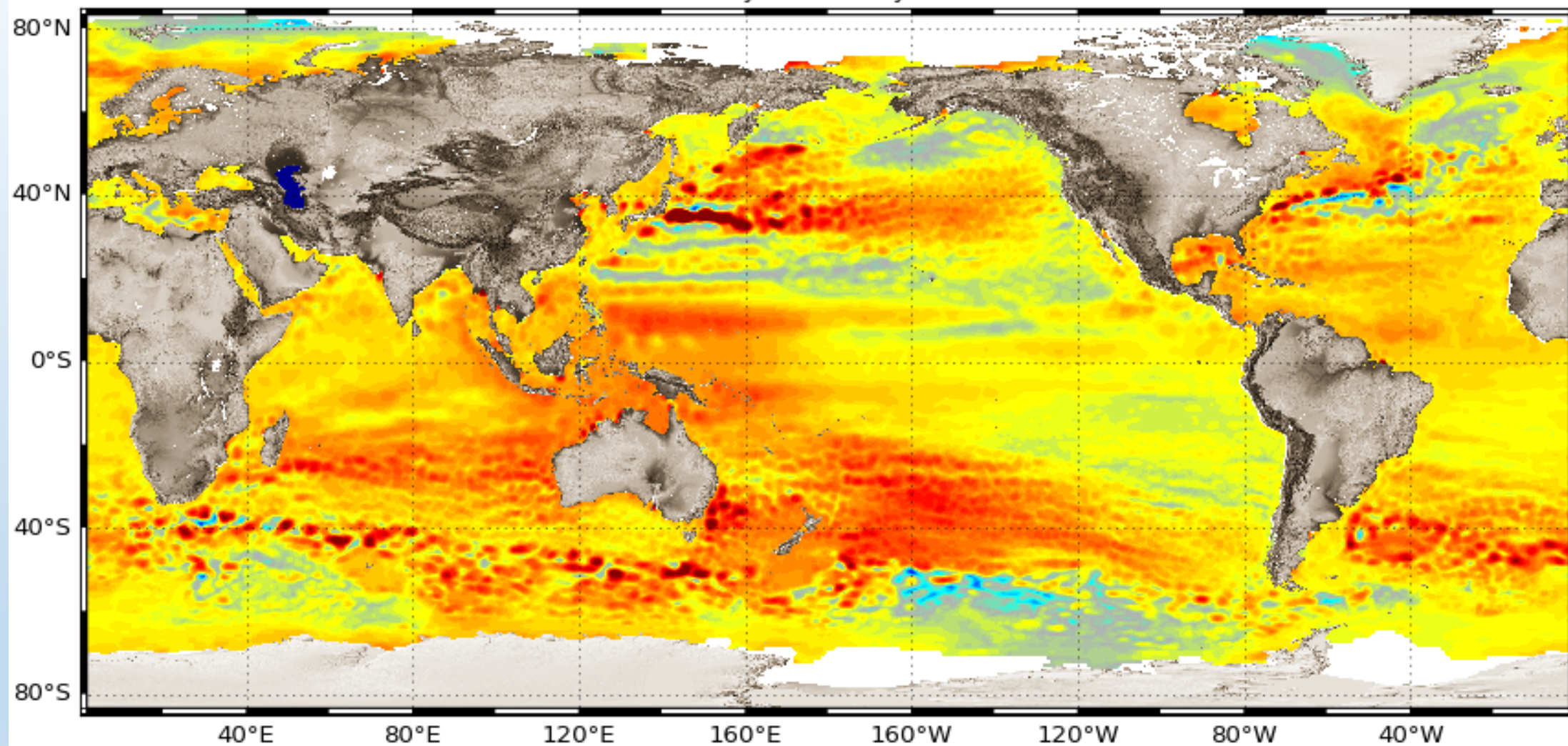


Backup Slides

University of Hawaii Sea Level Center



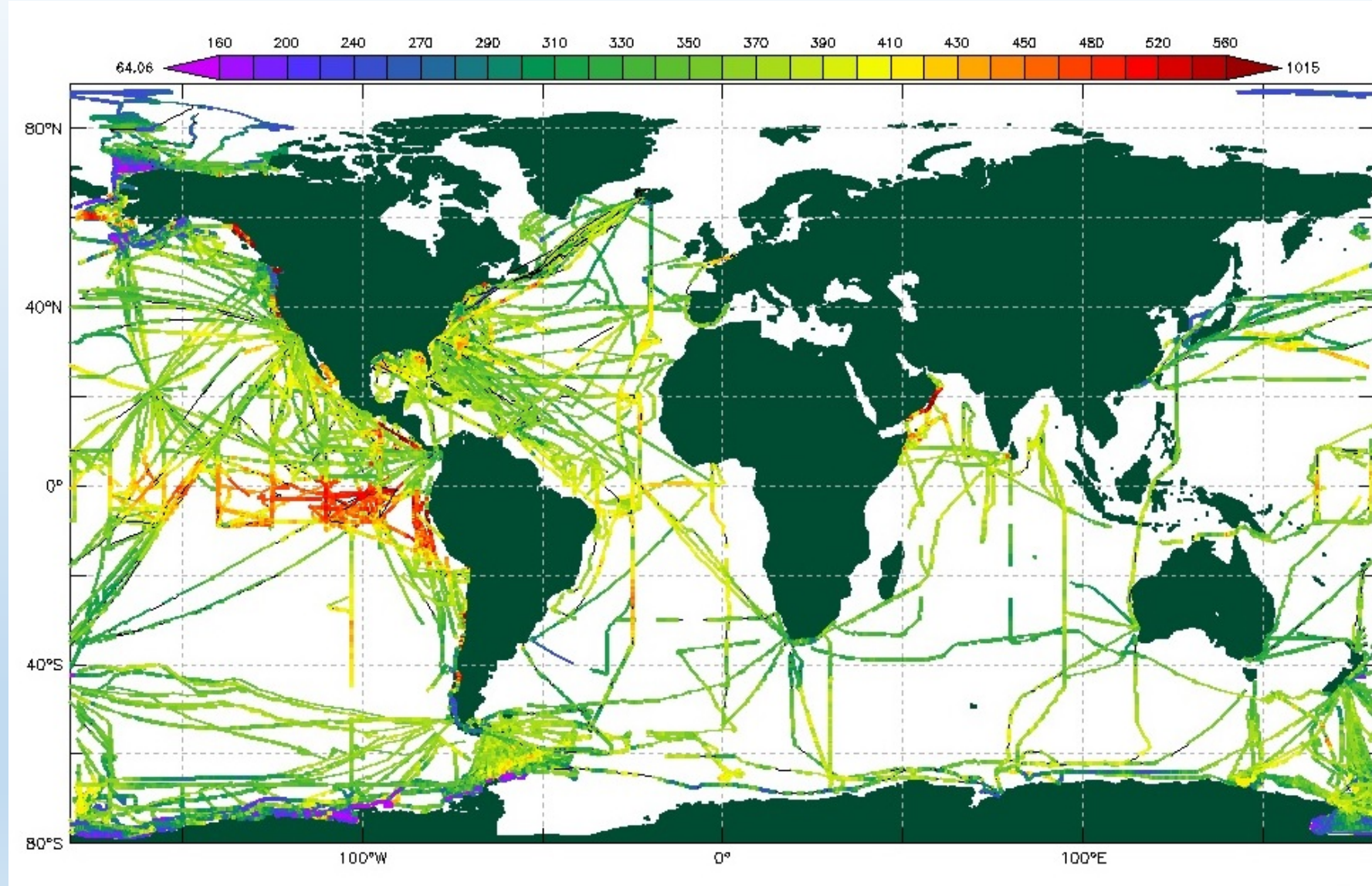
Period: Jan-1993 to Jan-2017



Regional MSL trends (mm/year)



Ship of Opportunity CO₂ Consortium



Surface water pCO₂ along SOOP-CO₂ transects (1990-2013)

Producing Seasonal CO₂ Flux Maps

