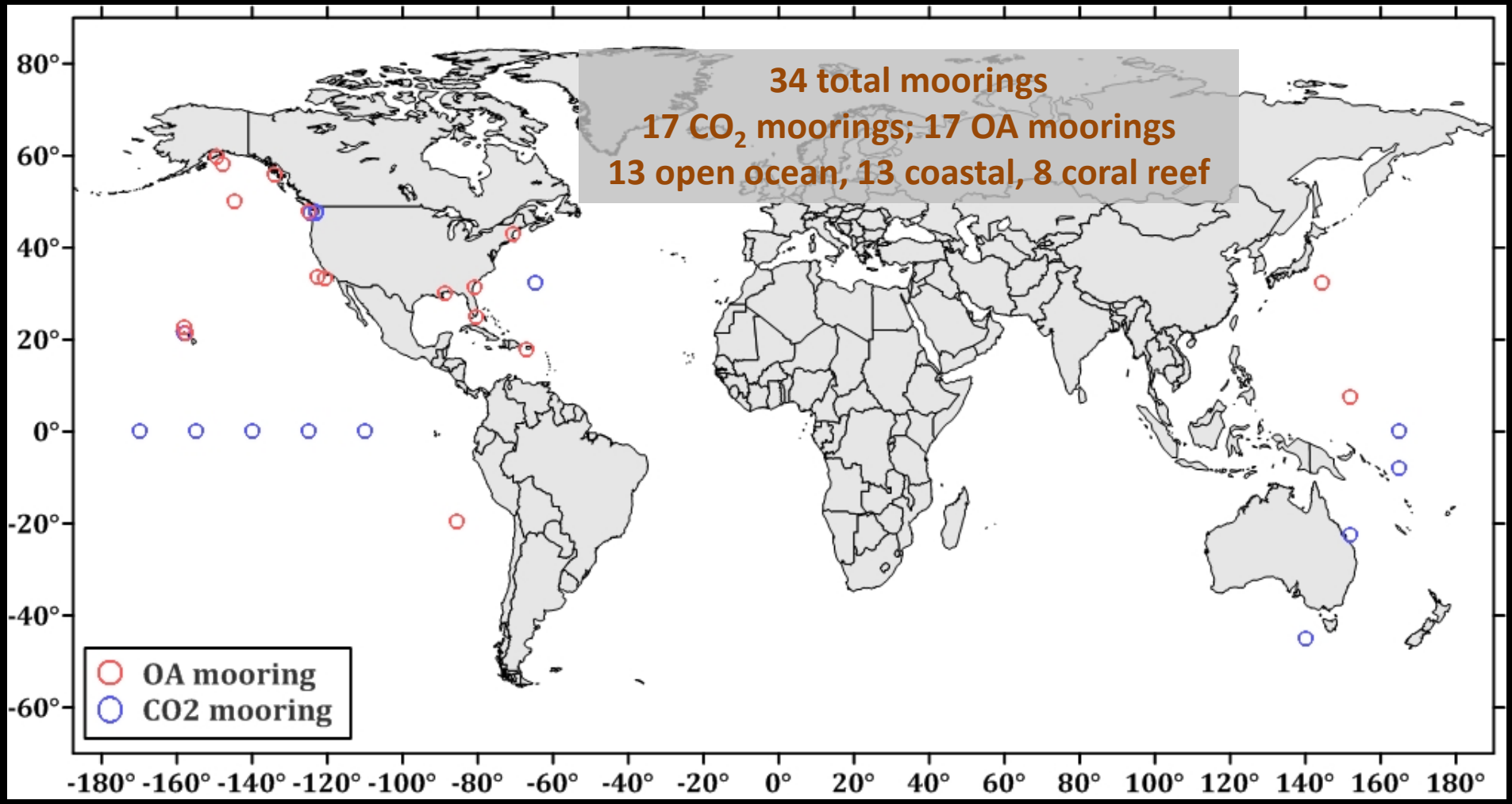
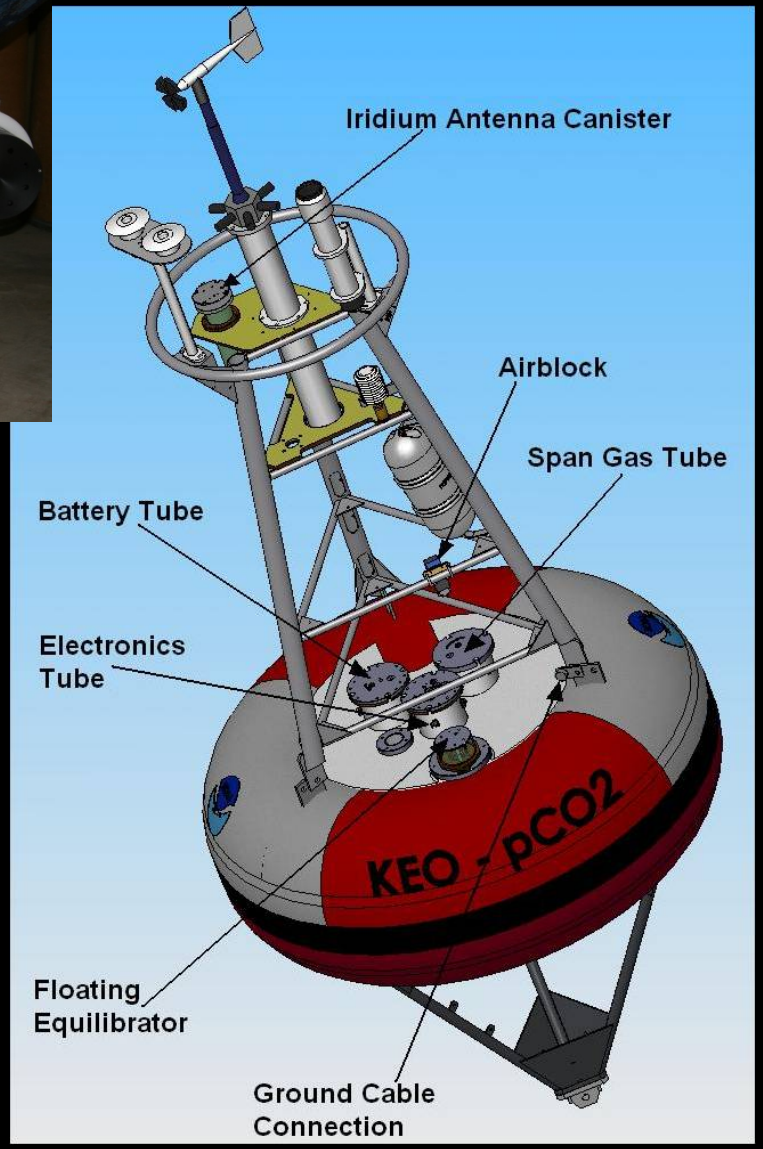
NOAA PMEL Mooring Network

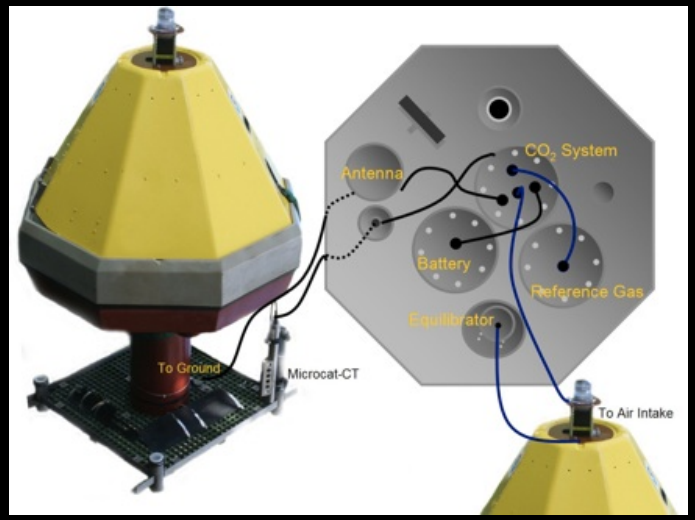


Supported by NOAA's Climate Observation Division, NOAA's Ocean Acidification Program, and a variety of partners

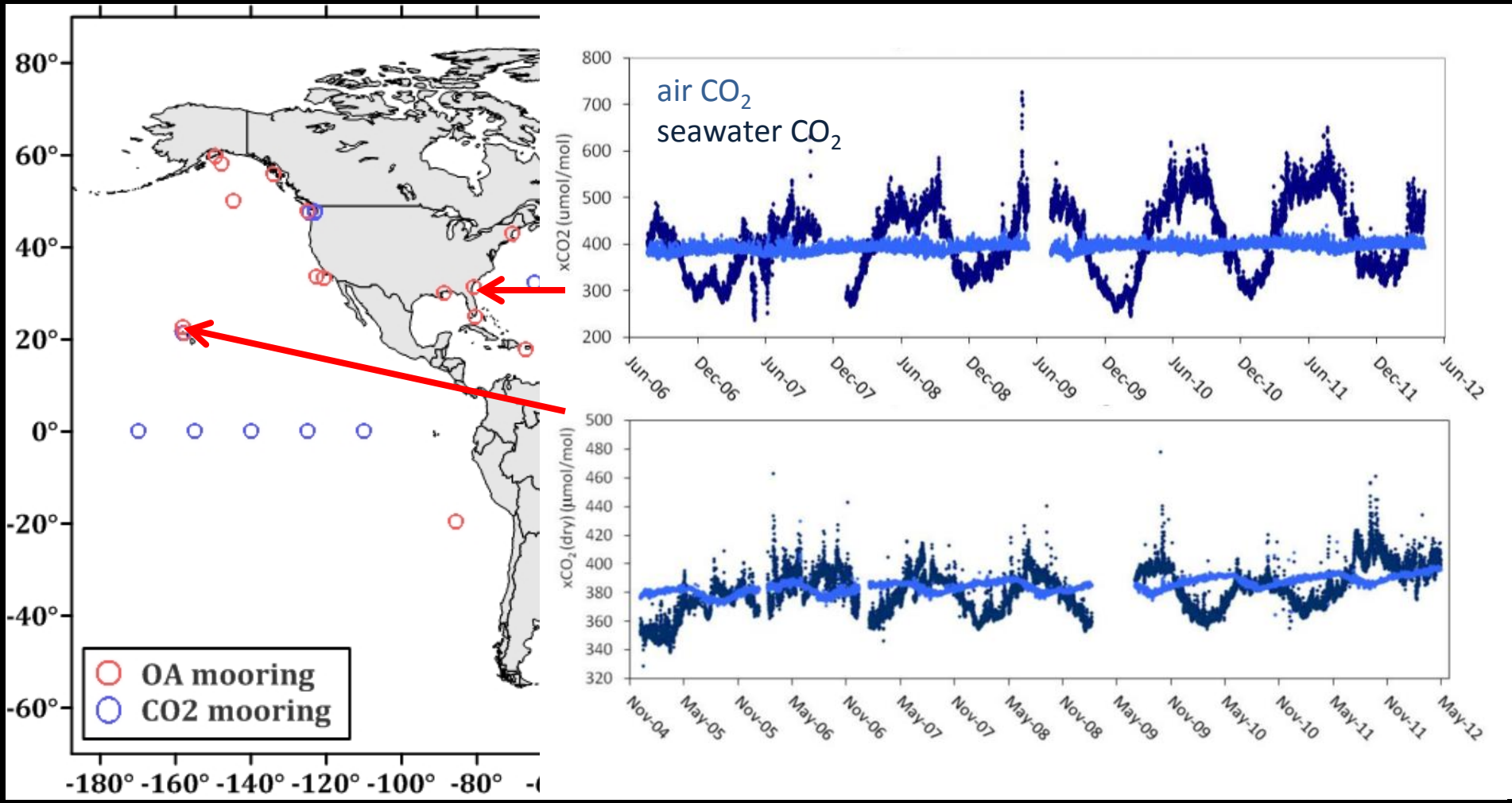
NOAA PMEL Mooring Network



air pCO_2
seawater pCO_2
pH
temp
salinity
dissolved O_2
chlorophyll
turbidity

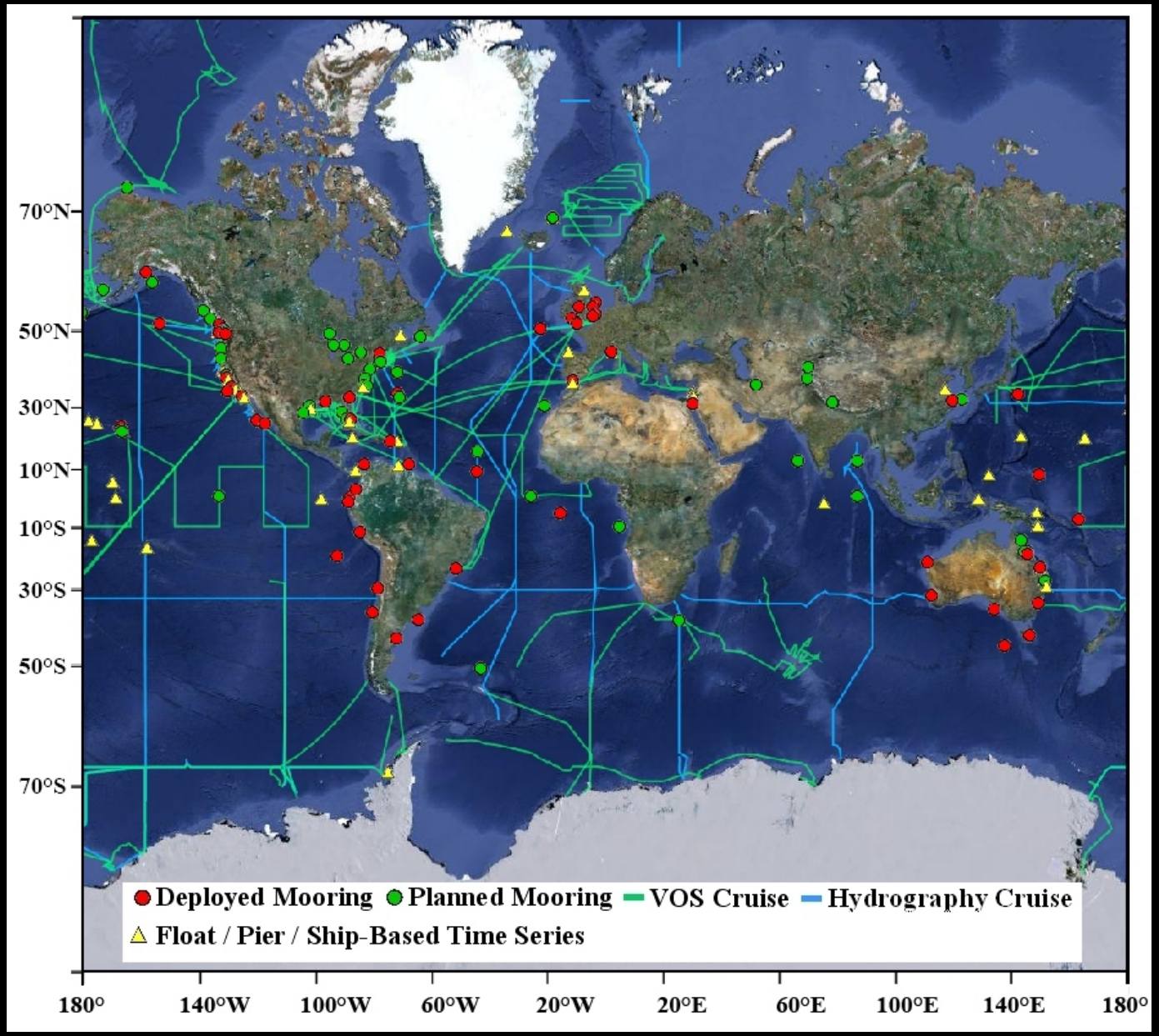


NOAA PMEL Mooring Network



Long-term, sustained monitoring is critical to understanding OA

International OA Mooring Network



WHAT the network needs to provide:

Goal 1. An understanding of **global OA conditions**:
Identify spatial/temporal patterns and assess generality of response; document and assess variation to infer mechanisms driving condition; quantify rate of change and ID areas of vulnerability

Goal 2. An understanding of **ecosystem response to OA**:
Measure biological responses to physical/chemical changes; quantify rate of change and ID areas of vulnerability

Goal 3. Input data to **optimize modeling for OA**:
Provide spatially and temporally resolved data for model initial conditions and evaluation; then use model output to aid #1-2

Spatial Temporal Network Design OCEANS

1. Utilize **GO-SHIP** global plan and similar research cruises for critical OA components to Network
2. Participate in **VOS/SoOP** global plan and enhance coverage (S hemisphere, Indian O, Arctic, etc)
3. Contribute to **OceanSITES** deepwater reference stations and enhance to address gaps (high latitudes, S Pacific, BATS, etc)
4. Participate in ongoing developments to collect OA relevant data with sufficient quality from **floats**
5. Contribute to development of **glider** technology for deployment