Acoustic Seafloor Mapping

NOAA Ship Nancy Foster, 2008

1. Purpose (Tim Battista)
   - Why do we collect acoustic data?

2. Methods (Bryan Costa)
   - Where have we collected data?
   - How do we collect, process & analyze it?

3. Live Demo (Mike Stecher)

Bryan Costa, NOAA

Edward Owens, NOAA

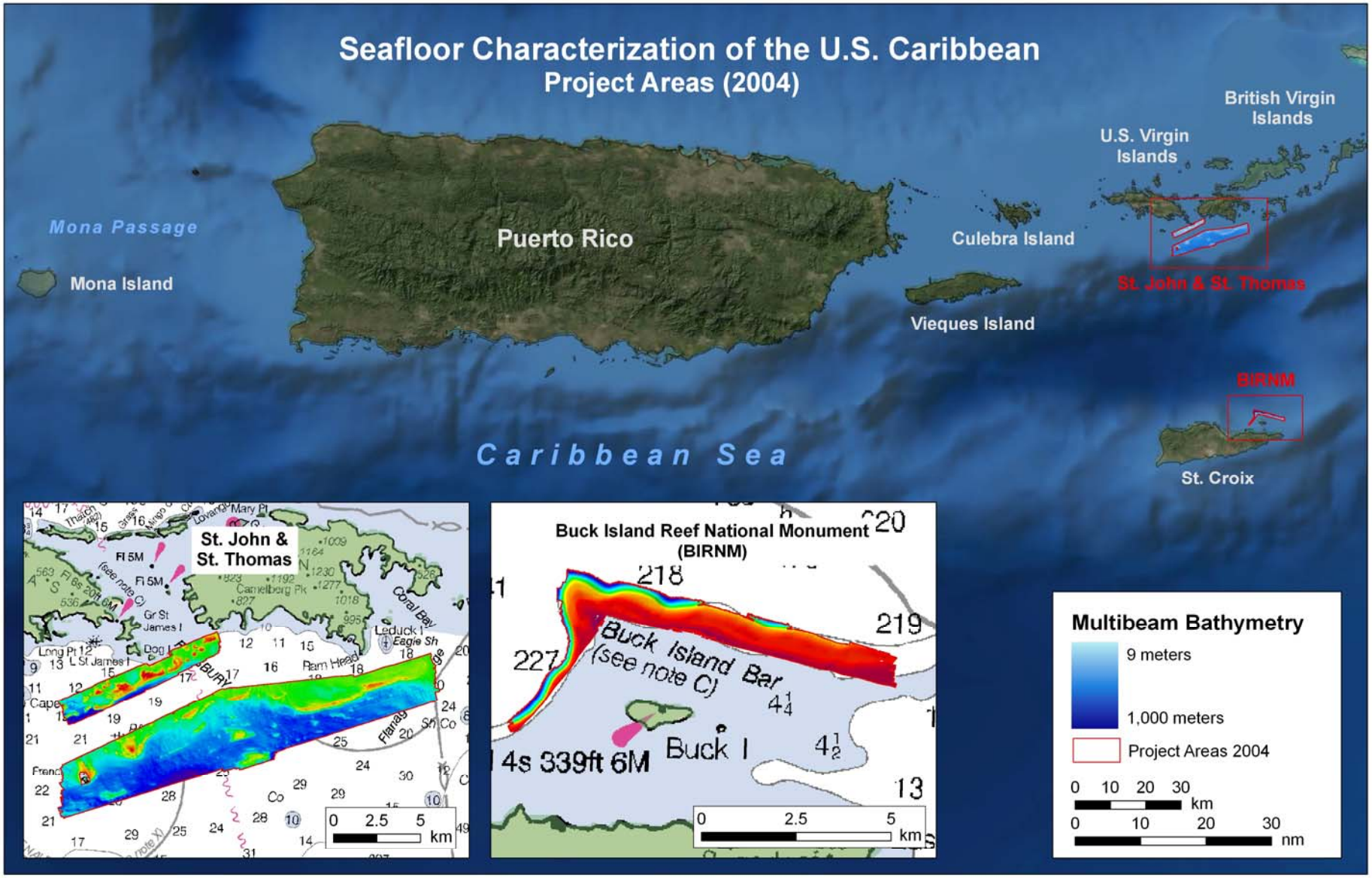
Mike Stecher, Solmar Hydro

Why do we collect acoustic data?

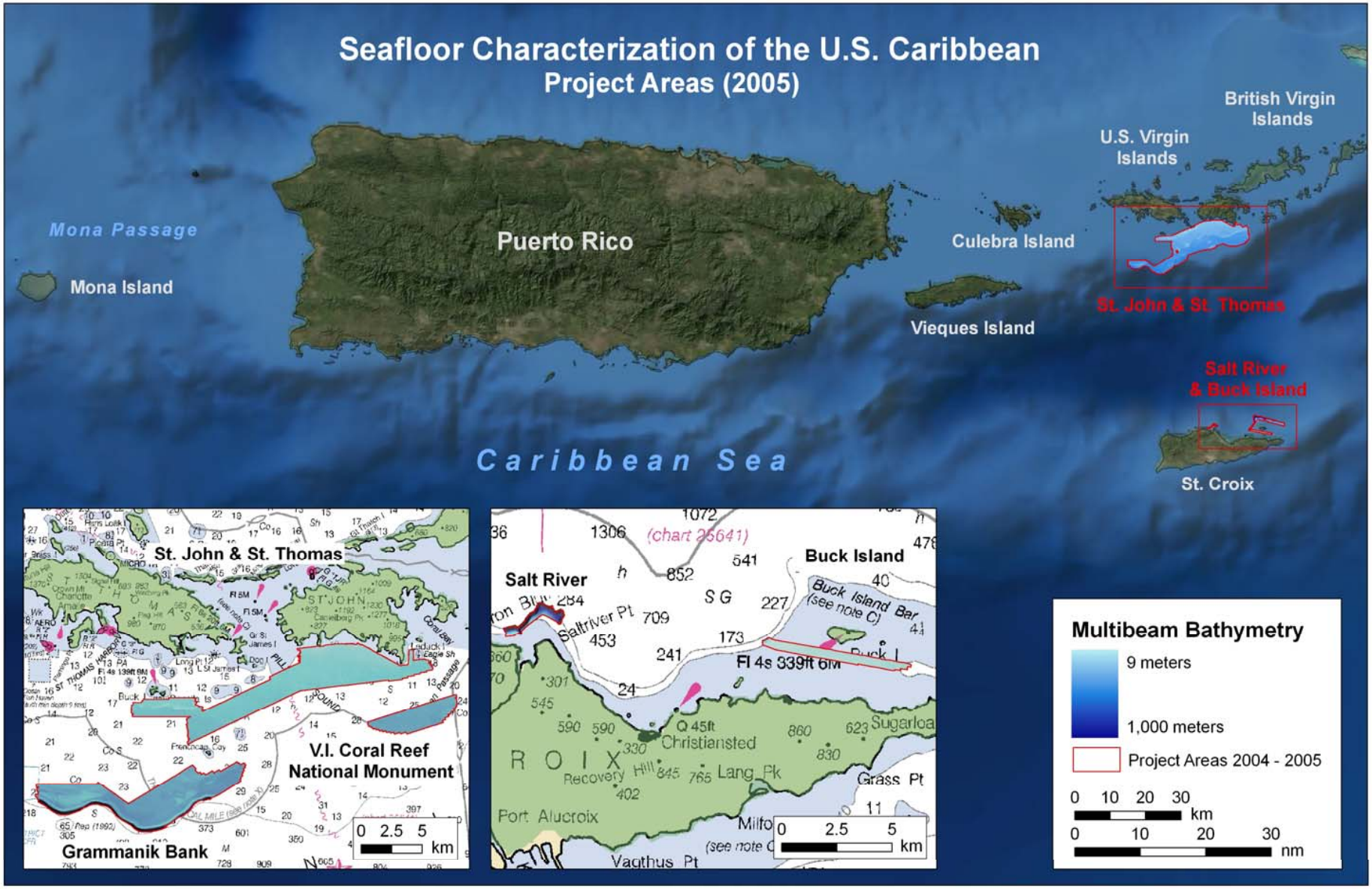
High resolution images of seafloor serve multiple purposes:

1. “Collect once…use many times.” (IOCM)
2. Safe Navigation - update nautical charts
3. Tsunami inundation modeling and forecasting
4. Develop benthic habitat maps to support management objectives
5. Help scientists to better understand the environment in which fish and corals live

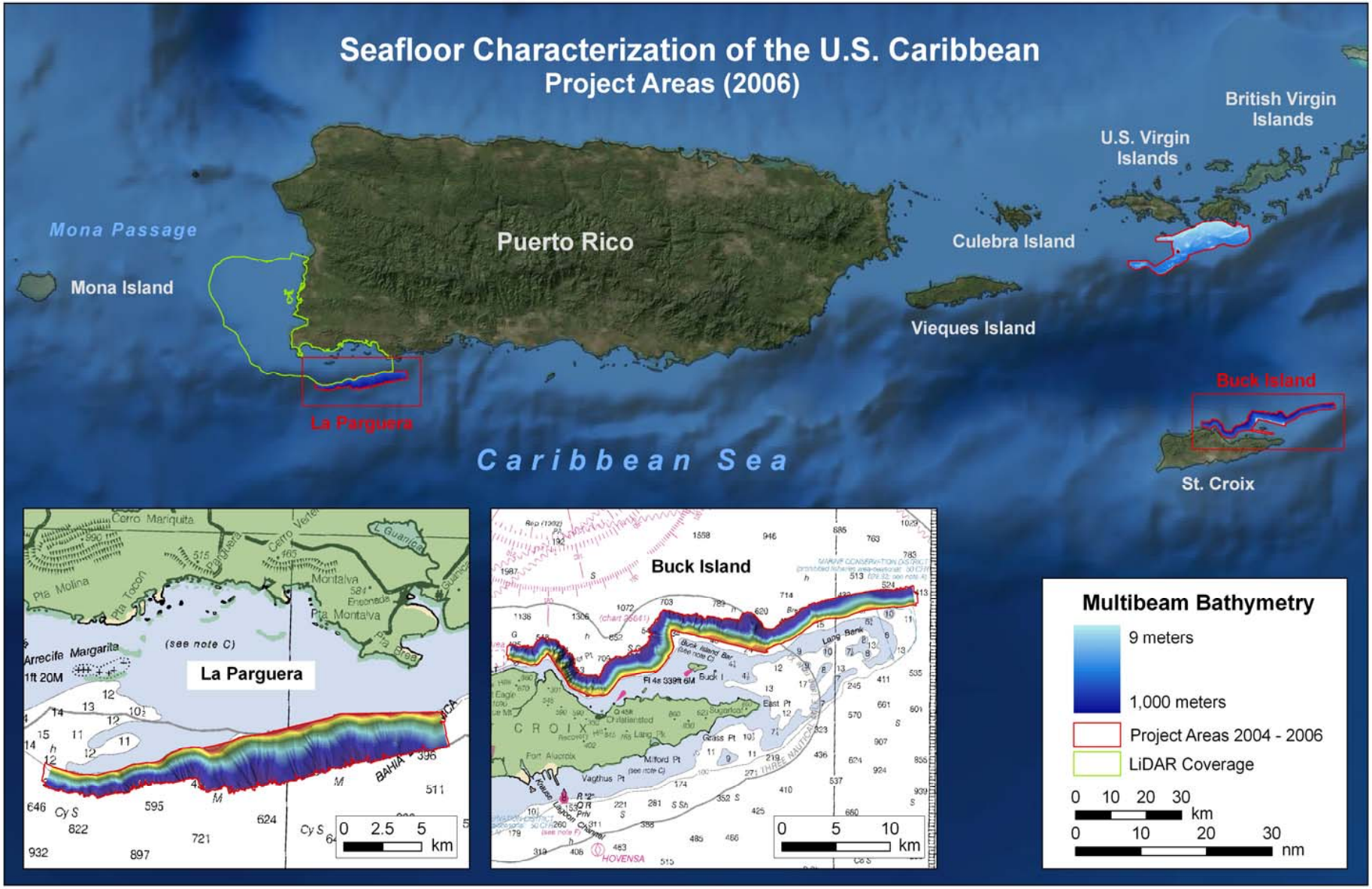
(2004) Where have we collected data?



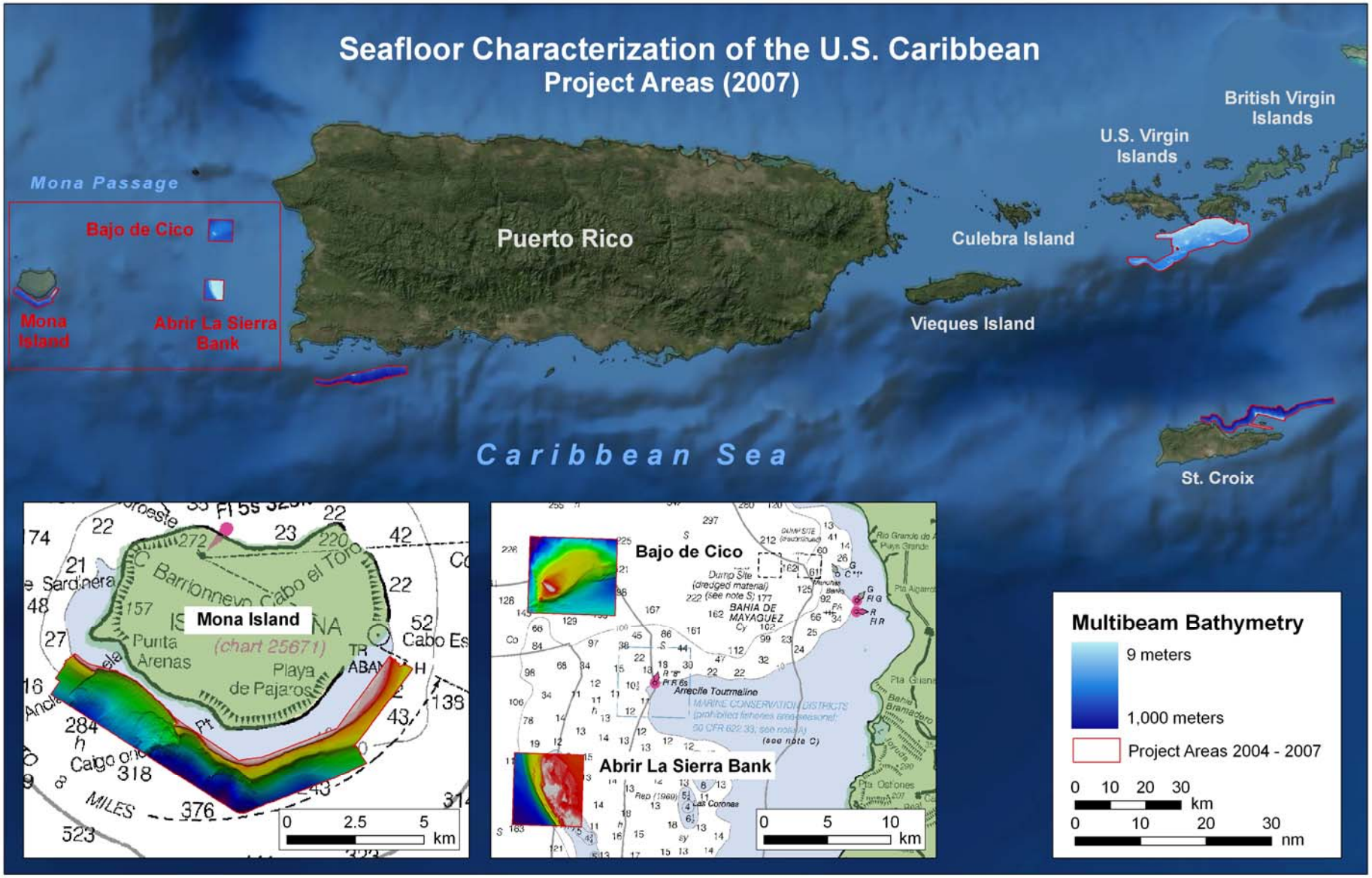
(2005) Where have we collected data?



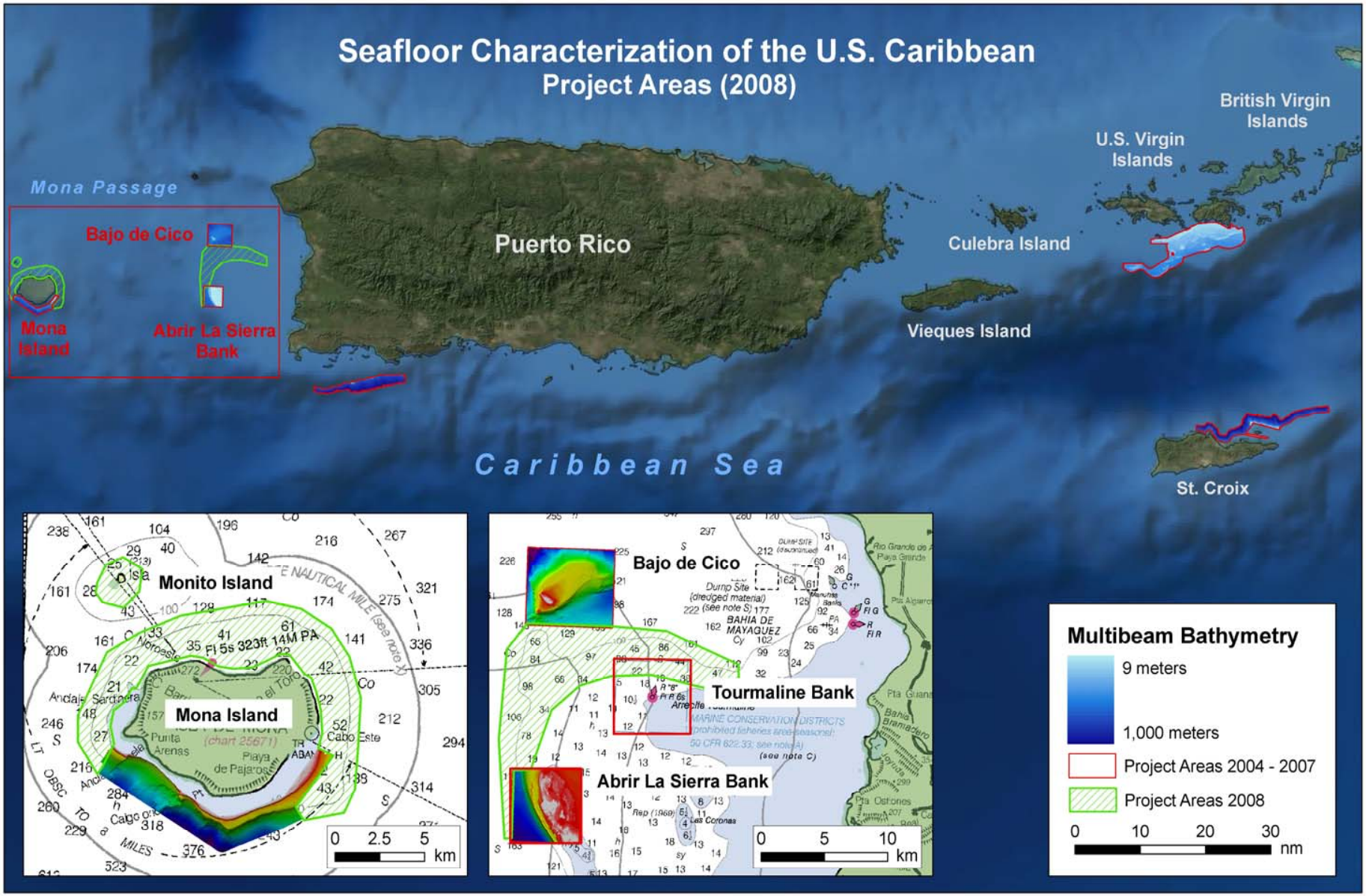
(2006) Where have we collected data?



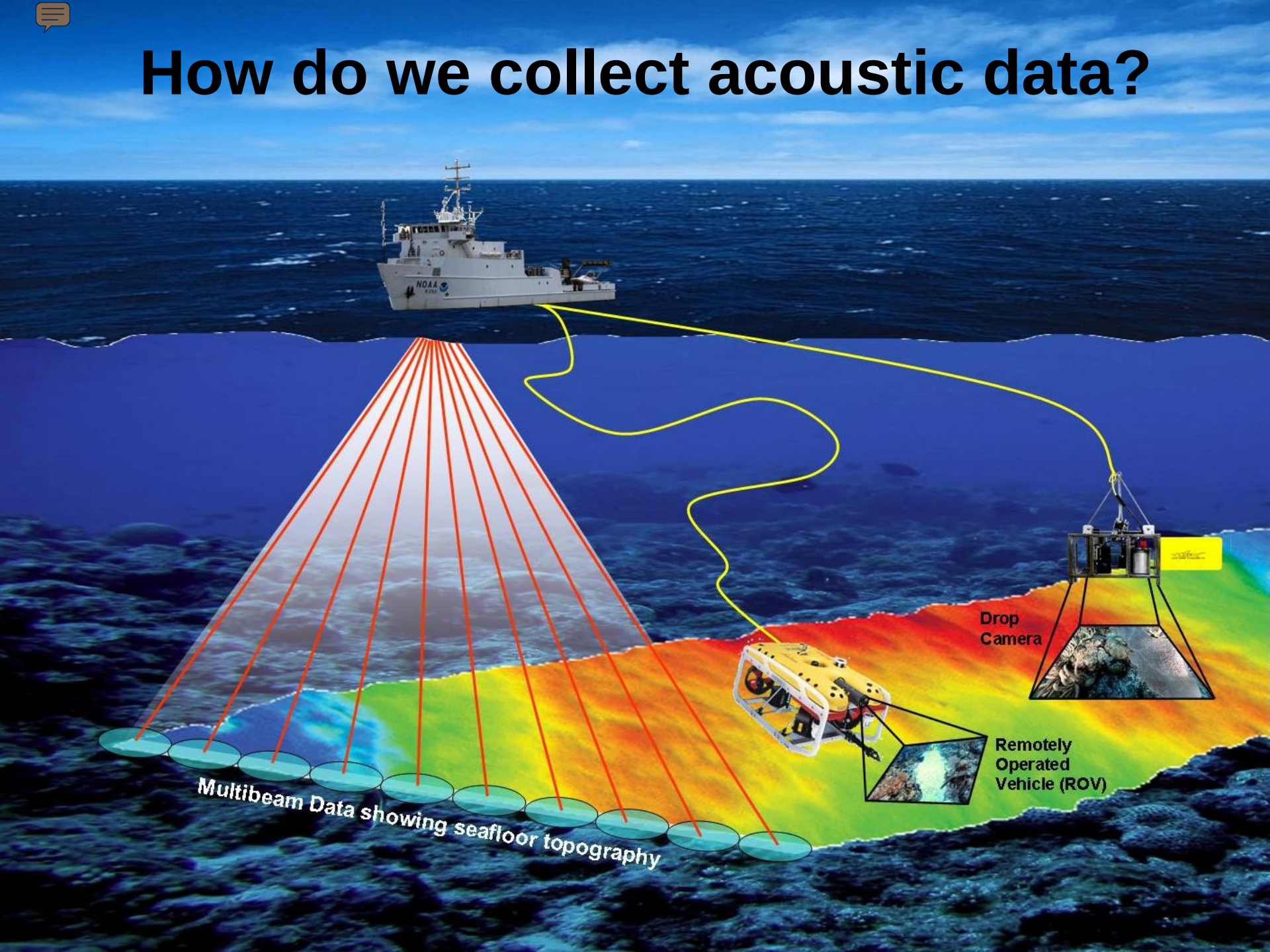
(2007) Where have we collected data?



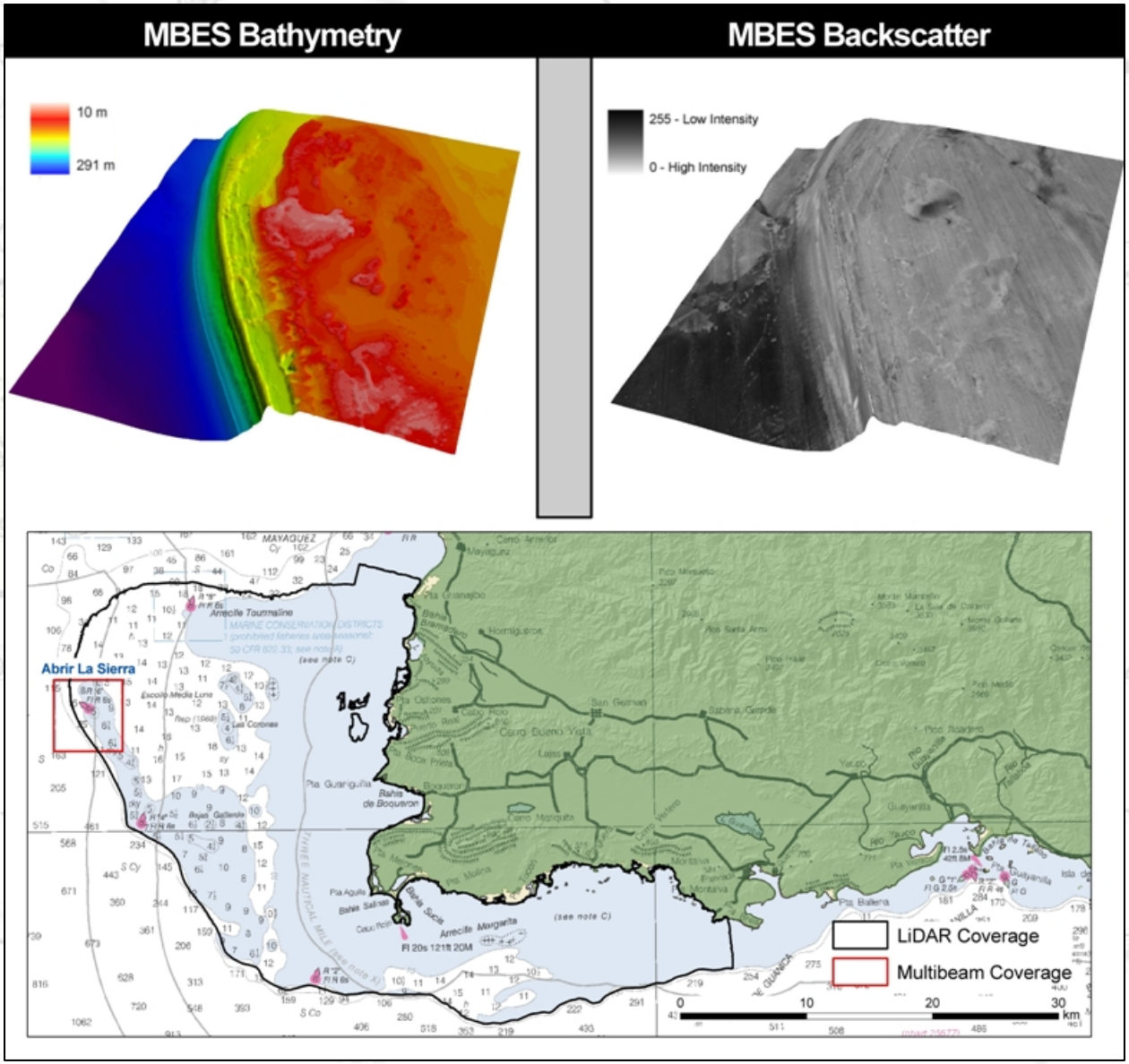
(2008) Where will we collect data?



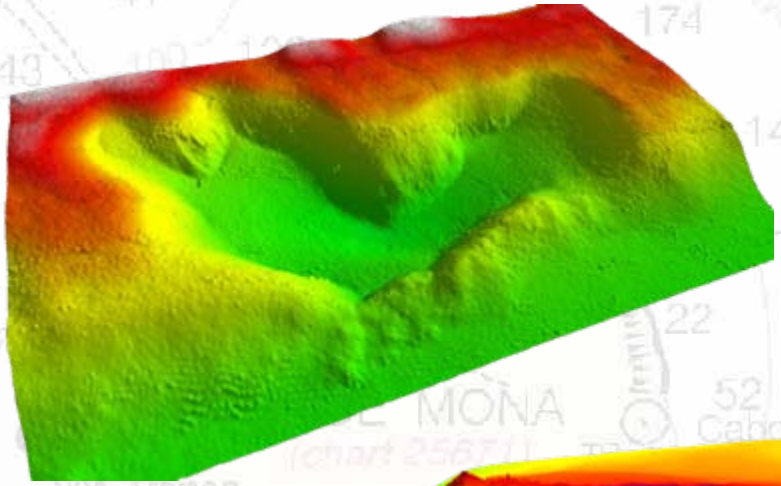
How do we collect acoustic data?

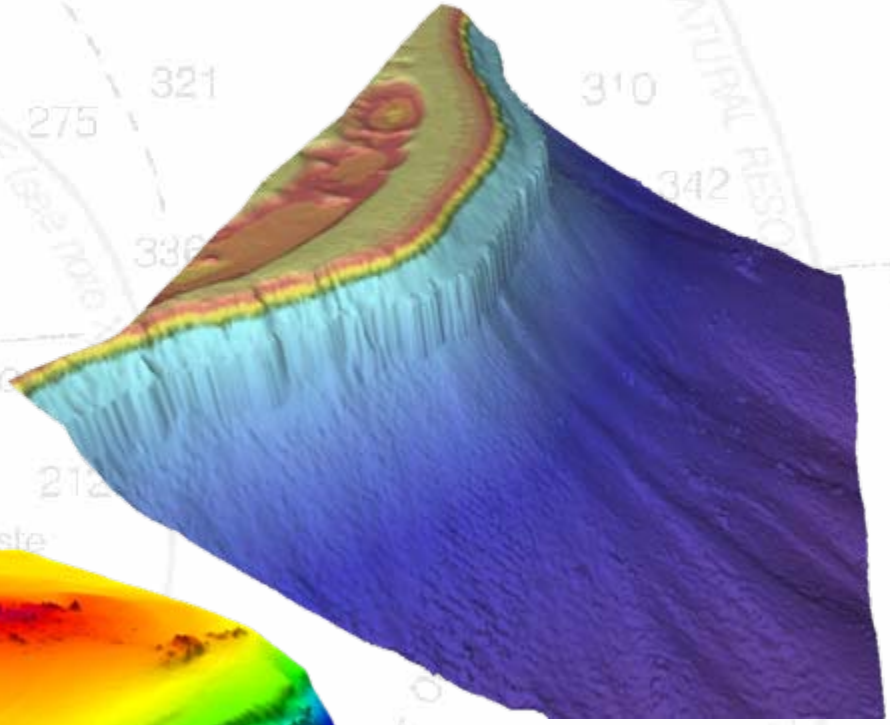


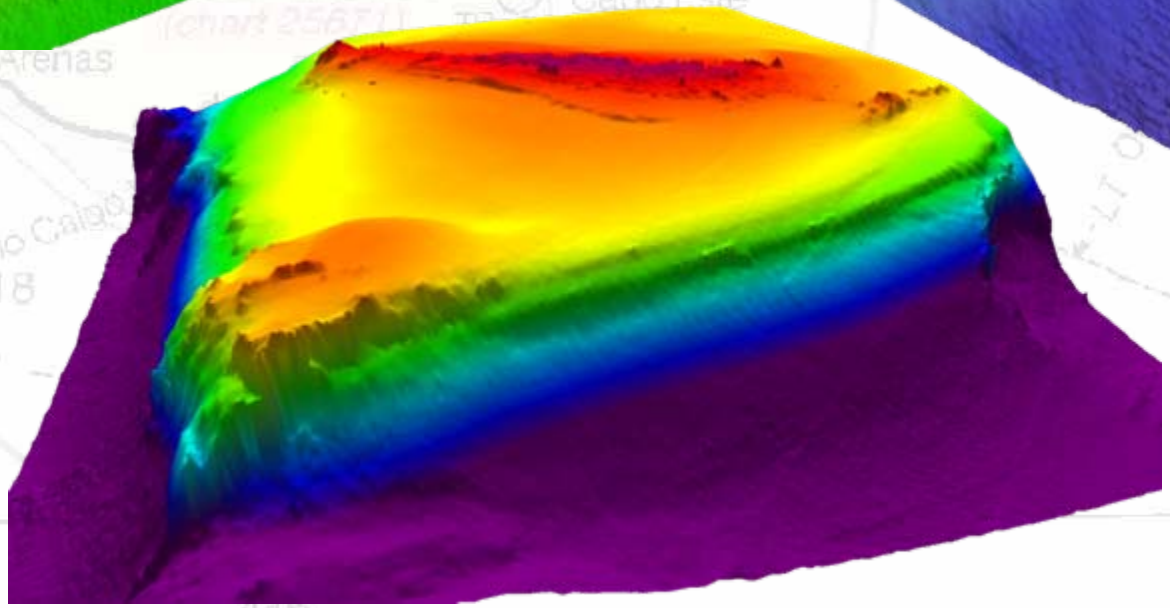
Mapping Products – Bathymetry/Backscatter



Mapping Products – Seafloor Features

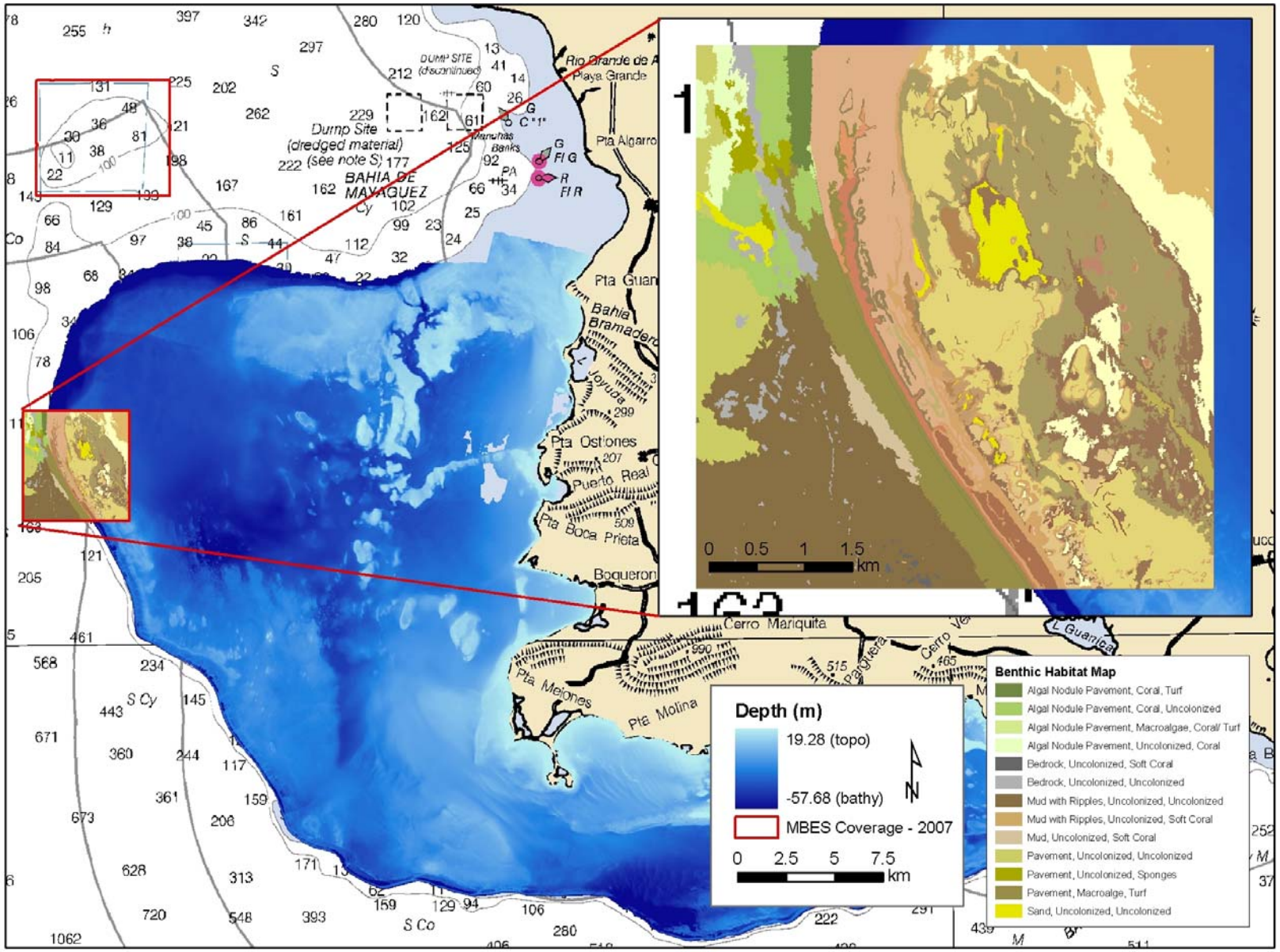
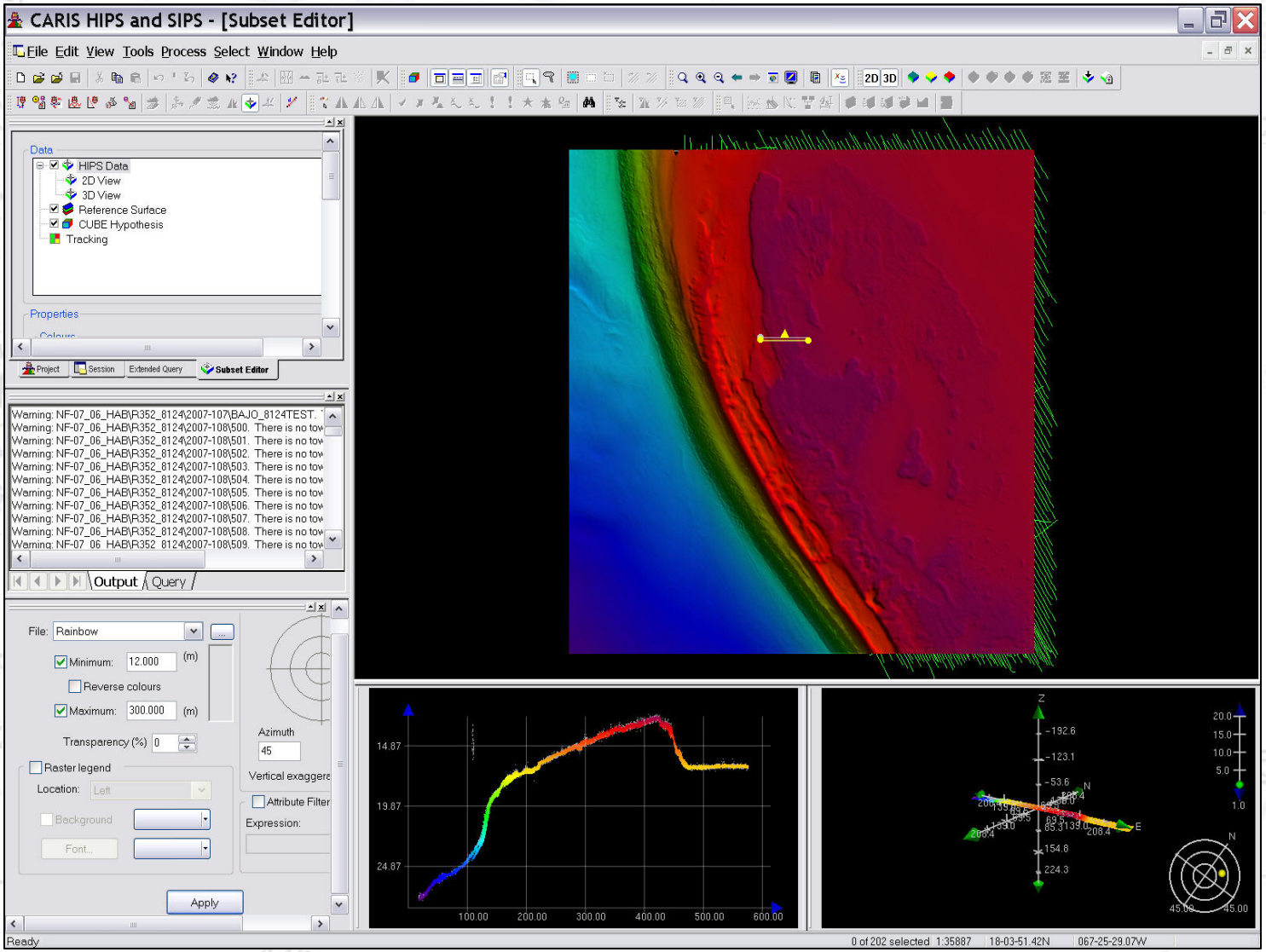






How do we create maps from acoustic data?

Mapping Products – Habitat Maps



Live Demo: EM 1002 & CARIS