The SPURS-2 Eastern Tropical Pacific Field Campaign Data Collection

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Upper left: Tracks of Revelle for cruises 1 (blue, summer 2016) and 2 (red, fall 2017).

Upper middle: Saildrone **Upper right:** Central mooring

Middle panels: Schooner Lady Amber and R/V Roger Revelle. Note the large rain radar

dome (the "golf ball") on the front.

Bottom panels: Sunset. Surface salinity profiler. Weather balloon.

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Problem: Previous studies of salinity processes have contained gaps that have constrained the ability to answer significant questions such as "How does the ocean integrate rainfall and evaporation that can alter ocean salinity at the surface?" The SPURS-2 (Salinity Processes in the Upper ocean Regional Studies - 2) field campaign collected new data and may help answer such important questions about salinity processes, especially in the tropics.

Data and methods: The 2016-2017 SPURS-2 field campaign consisted of a large variety of autonomous, drifting, ship-based, and moored instrumentation, including both standard types (e.g., CTDs and moorings) and innovative instruments (e.g., rain radar and saildrones). The activity was centered at a central mooring located near 10° N, 125° W, which is in the tropical eastern Pacific about 1500 km south of San Diego, CA. Two research ships visited the SPURS-2 site, the R/V Roger Revelle and the schooner Lady Amber.

Broader significance: The SPURS-2 field campaign was extensive in its scope, innovative in its approach, diverse in its participation, and heterogeneous in its methods. This paper compiles all of the SPURS-2 data sets into one place and emphasizes the degree of unity and coordination that went into the field program. An interactive online tool that is designed to explore the relationships among SPURS-2 data sets is also described. We invite interested readers to explore the <u>SPURS-2 data</u> collection and the online tool

Right: From the interactive online tool. Information about SPURS-2 data sets has been categorized into a set of terms. These terms and their relationships are visualized via the data exploration tool developed for SPURS-2.

