

## **SPURS Briefing for US CLIVAR PSMIP**

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SPURS (Salinity Processes Upper-ocean Regional Study) is a multi-agency, multi-national process study that will involve a field campaign in the subtropical North Atlantic during September 2012 to September 2013, near the climatological location of maximum sea surface salinity centered around 25°N, 38°W. The central goal of SPURS is to better understand the processes that maintain the surface salinity maximum in the subtropical North Atlantic. Salinity is one of the most poorly sampled and poorly simulated ocean dynamical variables. The ocean salinity field is important not only because of its direct influence on ocean circulation, but also because ocean salinity provides a sensitive, integral measure of changes in the global water cycle.

An important broader goal of SPURS is to understand the physical processes that contribute to variability of upper-ocean salinity at various spatial scales. The dense 3D sampling array in SPURS will provide a uniquely detailed perspective on the processes affecting the distribution of salinity in the upper ocean. In addition to the field program, SPURS also includes a modeling component linking global eddy-permitting ocean general circulation models with regional eddy-resolving models. SPURS data and other relevant data and model output will be made available to the public through a real-time, interactive Data Management System during and after the field campaign. The understanding gained from the process study will be helpful for identifying model deficiencies and for interpreting coarser, global measurements, such as from the Argo float program and the Aquarius satellite mission.