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## **Air-sea coupling under the persistent stratus in the Southeastern Pacific**

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A well-equipped surface mooring is being used to investigate air-sea coupling under the marine stratus clouds off northern Chile. This data sparse region is of critical importance to better understanding coupled climate variability, but air-sea coupling there has been poorly understood due to uncertainties in existing surface flux climatologies and errors in atmospheric models. The mooring was installed in October 2000 and equipped with two sets of redundant, high quality meteorological sensors. In addition, the mooring line carries sensors of ocean currents, temperature, and salinity. Careful pre and post-deployment sensor calibrations together with field comparison of ship-board and moored meteorological sensors have allowed the development of surface flux time series of documented high accuracy. These time series provide a new and accurate description of the air-sea coupling under the stratus clouds. The availability of accurate surface fluxes in turn supports the investigation into the role of ocean dynamics in governing sea surface temperature, mixed layer depth, and upper ocean heat content.