**Deep Argo – Sampling the Full-Depth Global Ocean**

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The Deep Argo Program is extending Argo’s sampling of the upper half of the ocean volume to the seafloor. A global array of over 1200 Deep Argo floats spaced at 5° latitude x 5° longitude will allow closure of regional and global budgets of heat, freshwater, and steric sea level on seasonal to decadal time-scales; enable accurate estimation of velocity and transport in the deep-ocean; and provide data for ocean modeling and assimilation. Successful prototype deployments have been carried out for four Deep Argo float models. The project has progressed to regional pilot arrays in the Pacific, Indian, North Atlantic, and Southern oceans, with about 50 operational floats total at present. The pilot phase is demonstrating and improving float capabilities, building float and CTD production capacity, as well as assessing and improving the accuracy and stability of Deep Argo CTDs. Deep Argo float deployments envisioned for 2018–2020 include expansions of existing arrays and establishment of a new pilot array in the South Atlantic. Two manufacturers are developing Deep Argo CTDs and both have ambitious targets for accuracy (±0.001°C, 0.002 ppt, 3 db for the SBE-61 and ±0.002°C, 0.003 ppt, 3 db for the RBRconcerto) and stability that are not yet achieved in validation data using shipboard CTDs. Progress toward these standards­ is ongoing through Argo/commercial partnerships. The critical value of the Global Ocean Ship-based Hydrographic Investigations Program that provides reference data and deployment opportunities is noted, as is the willingness of colleagues to deploy Deep Argo floats in remote deep-ocean locations, to add biogeochemical sensors (e.g. optodes), and for testing under ice. Scientific analysis of Deep Argo data has begun, including investigation of interior circulation and transport in the SW Pacific Basin, and circulation and water mass properties in the North Atlantic. Following completion of the pilot phase, Deep Argo will commence global implementation.