

THE USE OF REAL-TIME DATA IN THE UNDERGRADUATE INTRODUCTORY OCEANOGRAPHY LABORATORY

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Abstract - Since August 2001, the Department of Oceanography at the University of Hawai`i at Manoa has been offering an introductory Oceanography laboratory to undergraduate science and non-science majors of the university. The laboratory is offered as an optional accompaniment to the department's very popular lecture course titled Science of the Sea. We describe the use of real time data in the instruction of basic oceanographic and atmospheric processes and concepts. We focus on our use of the NOAA TAO/Triton array real-time data plots and model forecasts of the Climate Prediction Center to help students construct and test hypotheses on El Nino/La Nina cycles, and to compare their findings with those of experts. We discuss the reasons behind the efficient and successful use of these applications, and the potential of other sources of real time data to be used in introductory laboratory courses such as ours.