The Hawaii Ocean Time-series (HOT) program has conducted regularly spaced observations of biogeochemical variables at Station ALOHA since 1988, providing one of the longest records of time series observations. However, the increase in explanatory power resulting from complete water column vertical observations has increased greatly over the latter period of the program, as shown in Figure 1. Time series observations of selected pigments have shown a systematic decline over the 17 years of time series observations. Time series data of dissolved oxygen concentrations and oxygen fluxes out of the upper ocean average 28.9 ± 0.05 mmol/m² time.

Conclusion

Almost two decades of monthly biogeochemical monitoring at Station ALOHA has provided a robust dataset which has grown useful in resolving dynamics on a wide range of time scales. Nevertheless, problems occurring on short timescales, including episodic events, less regularly understood by the community, and events occurring on scales of days or weeks have necessarily been included in the concerns of HOT observations. Advances in measurement technologies have allowed for the implementation of high-precision, high-resolution measurement programs with increasing utility in place near Station ALOHA. Additional observations are being made at a number of other sites currently or potentially under consideration within the HOT network.